

Summer Food Issue

Diabetes

F O R E C A S T[®]

The
Healthy
Living
Magazine

Fresh Flavor

Recipes
For Dining
Outside
p.62

A Doctor's Diabetes

KEEPING
KIDS SAFE
AT DAY CARE

JUNE 2014
DiabetesForecast.org



Inside:
Can you find all the
Red Striders?

 American
Diabetes
Association

IF YOU HAVE **DIABETES**
WHAT YOU PUT HERE
CAN IMPACT YOUR GUM HEALTH



Don't brush it off—use Colgate® 

Did you know that if you have diabetes, you're 2X more likely to develop gum disease?
Good news—**Colgate Total®** toothpaste can help.

Colgate Total® reduces 90% more germs that cause gingivitis, the most common form of gum disease.*

Learn more at OralHealthandDiabetes.com

*vs ordinary, non-antibacterial toothpaste 12 hours after brushing.



Colgate® 

a national strategic partner of
 **American
Diabetes
Association®**

Inside June 2014

Diabetes Forecast® The Healthy Living Magazine

46

Beauty and the Beast star Austin Basis takes us on the set with diabetes.

- 9 Welcome
- 11 Reply All
- 12 Ask the Experts
- 82 Shopper's Guide
- 84 Reflections

Discovery

- 19 Diabetes
- 21 Exercise
- 22 Nutrition
- 24 Weight Loss
- 25 Kids

Your Health

- 26 Well-Being
Tips for creating and using a first-aid kit
- 30 Perspective
A doctor turns patient
- 32 Fitness
A full-body, sit-down workout
- 36 Caregiving
Do couples who stay together get sick together?
- 40 Live and Learn **New!**
A diabetes educator helps a man see a true picture of his blood glucose levels
- 42 People to Know
A child and his family chase away diabetes

On the Cover

- 62 Fresh Flavor
- 30 A Doctor's Diabetes
- 52 Keeping Kids Safe
- 76 Red Striders



26

June 2014

Inside

Diabetes Forecast® The Healthy Living Magazine

Features

44

Happy Campers

The Chickasaw Nation opens the diabetes camp experience to adults

46

Behind the Scenes

Beauty and the Beast star Austin Basis talks about showbiz and diabetes

50

All for One

A treasure trove of data about type 1 diabetes

52

The Day-Care Dilemma

What you need to fight child-care discrimination

58

Magnetic Attraction

Wolfgang Peti probes the mechanics of diabetes with powerful magnets

Your Food

62 Take It Outside

Recipes for three menus

74 Eating Well

New “what to eat” guides for you

Your ADA

76 Events

Meet five Red Striders who walk at Step Out

79 Events

Start taking control of your health at EXPO and online

79 Books

A budget-wise cookbook from chef Charles Mattocks

80 Research

Unlocking the mysteries of bone and joint health



Cecile Lavabre/Getty Images (baby)

MAKE EVERY HEALTHY CHOICE REWARDING™



Get points for walking, running, glucose testing and more.



Start today at
[Walgreens.com/HealthyChoices](https://www.walgreens.com/HealthyChoices)

WALKING, RUNNING AND CYCLING		20 POINTS/MILE*
WEIGHT TRACKING		20 POINTS/LOG*
BLOOD PRESSURE TEST		20 POINTS/TEST*
BLOOD GLUCOSE TEST		20 POINTS/TEST*
LINKED DEVICE OR APPLICATION		250 POINTS/DEVICE*

\$5 REWARD
for 5,000 points†

*Restrictions apply. Limit 20 points per mile, 1000 points per month. Limit 20 points per daily weigh-in logged. Limit 20 points per blood glucose test, two logs per day. Limit 20 points per blood pressure test, one log per day. Information provided to Walgreens online is covered by the terms of our Online Privacy and Security Policy and the terms and conditions of Balance Rewards. Personally identifiable information is not covered under HIPAA or the Walgreens Notice of Privacy Practices. For full program terms and conditions, visit [Walgreens.com/HealthyChoices](https://www.walgreens.com/HealthyChoices).

†Good on next purchase. Points are not earned if Store Credit or Redemption Dollars are used in a transaction and cannot be redeemed on some items. Complete details at [Walgreens.com/Balance](https://www.walgreens.com/Balance).

Diabetes FORECAST®

Editorial

Kelly Rawlings Editorial Director

James Bock Senior Editor

John C. Warren Managing Editor

Erika Gebel Berg, PhD,

Tracey Neithercott, Lindsey Wahowiak
Associate Editors

Paulina Duker, MPH, RN, BC-ADM, CDE

Vice President, Diabetes Education and
Clinical Programs

Sara Sklaroff Editor at Large

Robyn Webb, MS, LN Food Editor

Cristina Izurieta Administrative Assistant

Andrew Curry Contributor

Richard Erb Publisher

Lori Rainford Managing Director,
Membership & Direct Response Marketing

Donald Crowl Director, Membership/
Subscription Services

Caryn Cochran Associate Director,
Fulfillment

Laurie Ann Hall Associate Director,
Billing & Collections, Publications

McMurry/TMG, LLC
Design and Production

Reader Panel

Anne Doyle

Janice Ford

Rachel Joy Gagliano

Eric Holzman

Leslie Jackson-Holland

Sue Jaspersen, PhD

Claudia A. Pollet

Mary Pruiett

Ellie Sonnenwirth

Kimberly Tiedman

Beatriz Vidal

Editor In Chief

Paris Roach, MD

Associate Professor of Clinical Medicine
Division of Endocrinology and
Metabolism
Indiana University School of
Medicine • Indianapolis

Associate Editors

Linda A. DiMeglio, MD, MPH

Associate Professor
Department of Pediatrics
Indiana University School of
Medicine • Indianapolis

David G. Marrero, PhD

J.O. Ritchey Professor of Medicine
Division of Endocrinology and
Metabolism
Indiana University School of
Medicine • Indianapolis

Christy L. Parkin, MSN, RN, CDE

Health Management Resources Inc.
Diabetes Education and Consulting
Services • Carmel, Ind.

Henry Rodriguez, MD

Medical Director
University of South Florida Diabetes
Center • Tampa, Fla.

**Madelyn L. Wheeler, MS, RDN, FADA,
FAND, CD**

Nutritional Computing Concepts •
Zionsville, Ind.

Craig Williams, PharmD

Associate Professor of Pharmacy
Oregon Health and Science University
Medical Center
Oregon State University College of
Pharmacy • Portland, Ore.

Editorial Board

Roger P. Austin, MS, RPh, CDE

Clinical Pharmacy Specialist
Henry Ford Health System • Detroit

Belinda Childs, APRN, MN, BC-ADM, CDE

Clinical Nurse Specialist
Mid-America Diabetes
Associates • Wichita, Kan.

Paul Ciechanowski, MD, MPH

Associate Professor
Consultation-Liaison & Primary
Care Psychiatry
University of Washington • Seattle

Mary de Groot, PhD

Associate Professor of Medicine
Indiana University School of
Medicine • Indianapolis

Robert A. Gabbay, MD, PhD

Chief Medical Officer
Joslin Diabetes Center • Boston

Bret Goodpaster, PhD

Assistant Professor of Medicine
Director, Exercise Physiology Laboratory
Obesity Nutrition Research Center
University of Pittsburgh • Pittsburgh

**Janis McWilliams, RN, MSN, CDE,
BC-ADM**

Diabetes Educator and
Clinical Specialist • Pittsburgh

Michael A. Weiss, Esq.

Attorney, Keevican Weiss Bauerle &
Hirsch LLC • Pittsburgh

Reader Services

Subscription Services: To change an address,
order a gift, or check your membership status,
please call 1-800-806-7801 or e-mail
diabetesforecast@emailcustomerservice.com.
Outside the United States, call (386) 246-0145.

Editorial Questions: If you have comments
or questions, please contact the Editors at
forecasteditor@diabetes.org.

Enjoy Your Healthy Living Magazine Anytime, Anywhere!

On Your Tablet | On Your Smartphone | At Your Computer | In Print

Diabetes Forecast is available by subscription at diabetesforecastallaccess.org
or by calling 1-800-806-7801. Your subscription includes access to the
Diabetes Forecast app and digital edition. The magazine is also available at these
fine stores: Barnes & Noble, CVS, and Walmart (select locations).



SAY YES TO PLEASURE



9_g | **12_g** | **80**
CARBS* | PROTEIN* | CALORIES*
*per 5.3 oz

*Dannon® Light & Fit® Greek Nonfat Yogurt
is a great food choice for people with diabetes.***



**Consult your Healthcare Professional to learn how Light & Fit Greek can be included as part of a balanced diet.

Diabetes FORECAST®

Advertising Sales

Nancy Stinson Harris

Associate Publisher and Vice President,
Corporate Alliances

Nancy Greenwald

Vice President, Advertising Sales
and Custom Media
McMurry/TMG

Julie DeVoss Graff

Advertising Manager

Consumer

Nancy Greenwald
ngreenwald@adamediasales.com
(646) 783-3786

Pharmaceutical/Medical

B. Joseph Jackson
bartjack@aol.com
Paul Nalbandian
pnalbandian4ada@aol.com

Tina Auletta

jggtina@aol.com

The Jackson-Gaeta Group Inc.
33 Smull Avenue
Caldwell, NJ 07006
(973) 403-7677

Consumer Digital

Paul Bozikis
pbozikis@adamediasales.com
(646) 367-2197

Shopper's Guide

Julie DeVoss Graff
jdevoss@diabetes.org
(703) 299-5511

Our Mission

The mission of the American Diabetes Association is to prevent and cure diabetes and to improve the lives of all people affected by diabetes.

American Diabetes Association Officers

Dwight Holing

Chair of the Board

Marjorie Cypress, PhD, C-ANP, CDE

President, Health Care & Education

Elizabeth R. Seaquist, MD

President, Medicine & Science

Robert J. Singley, MBA

Secretary/Treasurer

Janel L. Wright, JD

Chair of the Board-Elect

David G. Marrero, PhD

President-Elect, Health Care & Education

Samuel Dagogo-Jack, MD, FRCP

President-Elect, Medicine & Science

Richard Farber, MBA

Secretary/Treasurer-Elect

Robin J. Richardson

Vice Chair of the Board

Margaret Powers, PhD, RD, CDE

Vice President, Health Care & Education

Desmond Schatz, MD

Vice President, Medicine & Science

Lorrie Welker Liang

Vice Secretary/Treasurer

Larry Hausner, MBA

Chief Executive Officer

Reader Guide

All editorial content in *Diabetes Forecast*® is reviewed by health care professionals. The content is for informational purposes only. Seek the direct advice of your own health care provider for any questions or issues you may have regarding your health.

Recipes are reviewed according to accepted standards for healthful eating with diabetes. Nutrition needs and therapies vary, however, so please consider your own eating plan, as well as advice from your health care provider, as the ultimate guide on what to eat.

Research news may involve products, technologies, and theories that are in the early stages of testing and development. Avoid basing any treatment decisions on such preliminary results.

Interviews with people who are affected by diabetes sometimes reflect personal experiences and opinions that may not be consistent with standards of diabetes care. We respectfully offer a platform to showcase the insights, experiences, and diversity of the diabetes community.

Advertisements are reviewed according to established criteria and guidelines. We aim to support public awareness of commercially available products that might be helpful in managing diabetes and to avoid advertisements that might deceive or mislead the reader. Acceptance of advertisements in *Diabetes Forecast* is not an endorsement by the American Diabetes Association®. The Association does not test advertised products, conduct independent scientific reviews of them, or ensure their safety and efficacy or the accuracy of their claims. Companies selling through the mail must comply with federal regulations regarding customer notification if the product is not available within 30 days. The Association reserves the right to reject any advertisement for any reason, which need not be disclosed to the party submitting the advertisement.

Opinions expressed in signed articles are those of the authors and are not necessarily endorsed by the American Diabetes Association (ADA).

Mailing Lists From time to time, the American Diabetes Association allows other worthy organizations to mail to our members. We carefully screen these organizations and only permit mailings from those whose services may be of interest to our supporters. If you do not desire to receive these mailings, or if you would like to change the frequency or types of communications you receive from us, simply write to American Diabetes Association Membership Department, 1701 N. Beauregard Street, Alexandria, VA 22311 or e-mail us at privacy@diabetes.org and we will be pleased to respect your wishes.

Magazine Delivery If the U.S. Postal Service alerts the ADA that your magazine is undeliverable, we will cease mailing the magazine unless we receive a corrected address within two years. To change your address, call 1-800-806-7801 or e-mail diabetesforecast@emailcustomerservice.com.

This month on: diabetesforecast.org

It's finally time for warm days, grilling, and picnics—which also makes it a great time for a **refresher course on food safety**. We've put together a package of what you need to know, including our May article on the topic plus online-only safety tips on dining out, grocery shopping, keeping food cold, the pesticide-laced "Dirty Dozen," and more. You'll find it at diabetesforecast.org/foodsafety-may2014.

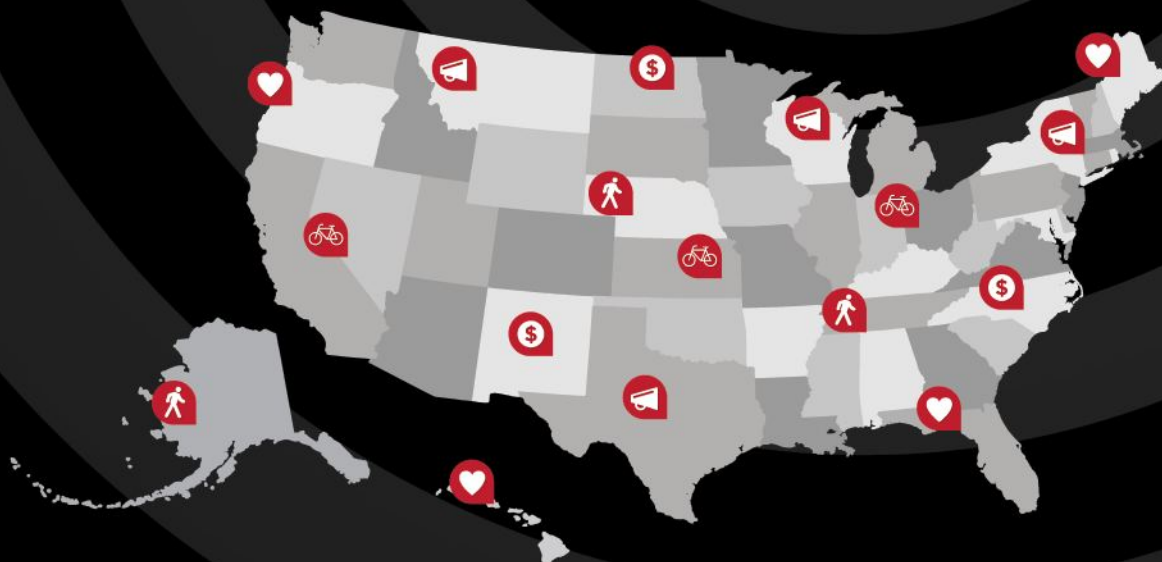


Printed in U.S.A.



 American Diabetes Association.

**TAKE THE PLEDGE and let the world know.
Together we CAN Stop Diabetes®.**



1-800-DIABETES

stopdiabetes.com

Every second counts. Use My Health Advisor today.

Get the answers you need to prevent type 2 diabetes and its complications.



If type 2 diabetes isn't diagnosed and managed, it can lead to heart attack, stroke, amputation, blindness, kidney failure and nerve damage. My Health Advisor is a free online tool that quickly calculates your risk for type 2 diabetes or its complications.

And it's easy to use:

- Answer a few questions about your health and lifestyle.
- Get your results instantly.
- Learn what you can do to change your risk.

Learn if you're at risk for type 2 diabetes. If you have type 2 diabetes, learn your risk for complications.

My Health Advisor will give you a personalized action plan.
Act now to lower your risk.

 American Diabetes Association.

diabetes.org/MHA

Check[✓]Up[®] America[®]

1-800-DIABETES (342-2383)

All Kinds of Good

THIS ISSUE IS packed with so much goodness, including an extra welcome letter on this page.

As always, you'll find facts and findings about healthy living. Some highlights include how to put together a first-aid kit and what parents need to know about day care for children with diabetes.

And then there's food—a dozen recipes full of fresh

summer flavors. Food Editor Robyn Webb has suggestions for outdoor dining, including menus for a patio party, a picnic, and a crowd-pleasing family gathering.

Plus, meet some new friends—a doctor dealing with her own diabetes diagnosis (page 30), an inspiring 6-year-old (page 42), and members of the Chickasaw Nation who attend adult camp to improve and refresh their diabetes health skills (page 44). Keep an eye out

for five Red Striders® from Step Out: Walk to Stop Diabetes® who have “taken over” our pages—can you spot them all? Signing up for Step Out is a great way to motivate yourself to get the physical activity that helps us feel our best.

Fondly,



Kelly Rawlings, PWD* type 1
forecasteditor@diabetes.org

Twitter: @KellyRawlings

*Person with diabetes


WELCOME TO OUR new Live and Learn department, on page 40. This new feature will allow educators and people living with diabetes to share their positive experiences, challenges, and successes—from which we all can gain.


Diabetes education is provided in many ways and venues: in individual counseling, group sessions, hospital or community settings, physician office practices, and even by telephone and video conferencing. Programs that achieve national recognition status from the American Diabetes Association meet standards of care in providing quality diabetes education.* To find an ADA Recognized Education Program near you, go to diabetes.org/findaprogram.


Diabetes Forecast welcomes your stories about how diabetes education has made a difference in your life or the lives of others. Please share some of your “aha moments” (send your descriptions to the e-mail or address listed on page 11).

—Janice Koshinsky, RN, MS, CDE
Chair, ADA Education Recognition
Program Committee

***SOURCE:** “National Standards for Diabetes Self-Management Education and Support,” *Diabetes Care*, January 2014

 Get friendly with us at
[facebook.com/AmericanDiabetesAssociation](https://www.facebook.com/AmericanDiabetesAssociation)

 Follow us on Twitter:
[@diabetes4cast](https://twitter.com/diabetes4cast)

 Chat with others about diabetes:
diabetes.org/messageboards



● Look for Red Striders, people with diabetes who participate in Step Out: Walk to Stop Diabetes, throughout this issue. And become one yourself! diabetes.org/stepout

Our **SOFTTEST & MOST COMFORTABLE Bra!**

Soft Touch Stretch Bra

Only \$ **7.99**

Save 20% Off
Original Price

Extra Wide
Padded Straps

Easy Access
Front Hook
Closure

The Ultimate In
All Day Comfort
& Support!

No More Painful Strap Marks



**FREE
SHIPPING &
HANDLING!**
when buying set of 2

Receive A Free Surprise Gift
With Every Order!

THE ULTIMATE IN ALL DAY COMFORT & SUPPORT! This could be our most popular bra ever! Pretty dotted tone-on-tone bra stretches to fit like a second skin. Designed for ultimate all-day comfort with extra-wide padded shoulder straps that will never gouge or irritate shoulders. Front closure means no more painful twisting or contorting. So easy on arthritic hands. Fashion import made of white polyester/spandex. Available in sizes 34, 36, 38, 40, 42, 44, 46, 48, 50 & 52. Hurry, order 2 or more and get **FREE shipping and handling & a FREE Surprise Gift with every order!** Satisfaction Guaranteed or Return For Your Money Back



Foot **COMPRESSION** Sleeve
Helps Alleviate

PLANTAR FASCIITIS PAIN 24/7!

only \$ **14.99**

♦ **FITS**

Comfortably Under Socks

♦ **SUPPORTS**

Weak Painful Arches

♦ **HELPS RELIEVE**

Pain & Swelling

Provides Varying
Degrees Of Graduated
Compression

Receive A Free
Surprise Gift
With Every
Order!

**SAVE
UP TO \$13.95**
when buying set of 2

**FREE
SHIPPING &
HANDLING!**
when buying set of 2



Prevention - Protection - Relief Unique compression foot sleeve offers varying degrees of compression, providing the perfect amount of support and relief from pain & swelling in your feet. Promotes better circulation and faster healing. Lightweight nylon /spandex import. S/M fits Ld's shoe size 5-9½, men's 6-8½. L/XL fits Ld's shoe size 10+, men's 9-13. Hurry, order 2 or more and get **FREE shipping and handling & a FREE Surprise Gift with every order!** Satisfaction Guaranteed or Return For Your Money Back

www.DreamProducts.com

(website offers
may vary)

**OR ORDER NOW
TOLL-FREE**

1-800-530-2689

#233 (Indicate Quantity Under Size)

34	36	38	40	42	44	46	48	50	52
Soft Touch Stretch Bra(s) @ \$7.99 ea. \$									
CA residents must add 7.5% sales tax \$									
Add \$4.95 Shipping & Handling 1st Item									
FREE SHIPPING & HANDLING when buying 2 or more \$									
FOR EXPEDITED SHIPPING (optional) Add An Additional \$2.95 (receive your order 5-7 days from shipment) \$ 2.95									
Please Print Clearly TOTAL \$									

Soft Touch Stretch Bra

☐ VISA ☐ MasterCard ☐ Discover®/NOVUS™ Cards

Dept. 68902 Card# Exp. Date / /

Name _____

Address _____

City _____ ST _____ Zip _____

Daytime Phone # _____

Email Address _____

Check or money order payable to: Dream Products, Inc.
Send Order To: 412 Dream Lane, Van Nuys, CA 91496

Foot **COMPRESSION** Sleeve

#82950	S/M	Foot Sleeve(s) @ \$14.99 ea.	\$
#82951	L/XL	Foot Sleeve(s) @ \$14.99 ea.	\$
#83230	S/M	1/2 Foot Sleeve(s) @ \$19.98	\$
#83231	L/XL	1/2 Foot Sleeve(s) @ \$19.98	\$
CA residents must add 7.5% sales tax \$			
Regular Shipping add \$3.95 when buying one			
FREE Shipping & Handling when buying set of 2 \$			
FOR EXPEDITED SHIPPING (optional) Add An Additional \$2.95 (Receive your order 5-7 days from shipment) \$ 2.95			
Please Print Clearly TOTAL \$			

☐ VISA ☐ MasterCard ☐ Discover®/NOVUS™ Cards

Dept. 68959 Card# Exp. Date / /

Name _____

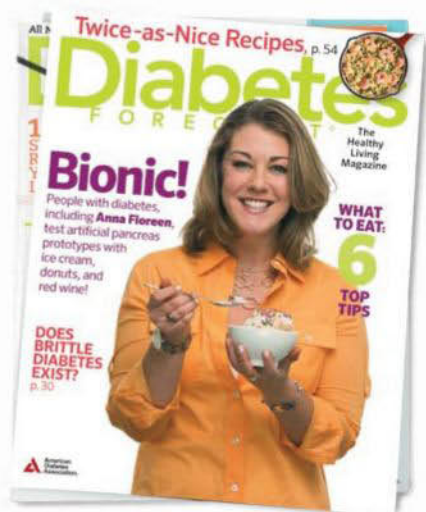
Address _____

City _____ ST _____ Zip _____

Daytime Phone # _____

Email Address _____

Check or money order payable to: Dream Products, Inc.
Send Order To: 412 Dream Lane, Van Nuys, CA 91496



Cover Choice

THANKS SO MUCH for your helpful magazine. I always find it to be an upbeat source of good, up-to-date information about my type 2 diabetes.

My comment is on your choice of the cover image for the March issue: a young, healthy-looking woman smiling and busily tucking into a big bowl of ice cream with multicolored sprinkles on top. Really? On close inspection, I saw that the image had to do with people testing artificial-pancreas prototypes with ice cream.

But if I had seen that magazine at a glance on a rack at a newsstand, my brain would have gone, “Oh, goody, I have diabetes, but I can buy this magazine, and they’ll show me how I can be young, normal weight, blonde, and beautiful, with my diabetes in good control—and eat ice cream!” Sorry, but that’s misleading. And frankly, I’m surprised you’d put that image anywhere in your magazine, not to mention right on the cover.

Judy DeVries, Exeter, N.H.

The Editors respond: Thanks for reading the magazine! Diabetes affects all sorts of people including the young, young at heart, normal

weight, overweight, blonde, bald, ice cream eaters, dessert avoiders, those who feel in control, and those who are trying their best to manage a tough disease. Our goals for the magazine are to reflect our diverse diabetes community and to present relevant news items and inspiring stories. And, of course, we think all our readers are beautiful.

A New Attitude

THANK YOU FOR Dee D’Haem’s Reflections essay, “Shedding Shame,” in the March issue [p. 76]. I realize now that shame has been my main motivator in my battle to avoid a type 2 diabetes diagnosis. With many people with diabetes in my family history and a prediabetes diagnosis myself, I have been fighting to not develop diabetes.

I will now shift my attitude—and continue to eat healthfully, lose weight, and exercise.

Margaret Davis, Truckee, Calif.

THANK YOU FOR Dee D’Haem’s article. After my sister was diagnosed with diabetes three years ago, I watched her struggle with the shame of having diabetes, even though our family has a history of diabetes (seven of our mother’s nine siblings had the disease).

It’s heartbreaking to see someone you love living in shame. It doesn’t help that much of the information you hear about type 2 diabetes blames the person for the condition.

Shame may keep people from getting the help they need when they need it the most. Many hide because of the shame of a condition that we can try to control but not fully stop because of our genetics.

To those who share this illness, know you are not alone. As I would tell my sister, “It may not be today, but one day you’ll say, ‘I have diabetes; diabetes does not have me.’”

Name Withheld

Score!

You should do a story about Cory Conacher of the Buffalo Sabres National Hockey League team. He’s had type 1 diabetes since he was a child, and it hasn’t stopped him at all. He’s young and tough, an inspiration to other kids who think that because they have type 1 they shouldn’t roughhouse. You can go for your dreams.

*Melynda Gascoyne
Tonawanda, N.Y.*

The Editors respond:

See our interview with Conacher at diabetesforecast.org/cory.



Courtney Benton, an adult artist with autism from Rochester Hills, Mich., sent us this “diabetes fairy” with a note: “I draw fairies to help people with special needs. This is my fairy to help fight against and get rid of diabetes. I truly believe she’ll work!”



E-mail us @:
replyall@diabetes.org



Send mail to:
Diabetes Forecast
1701 N. Beauregard Street
Alexandria, VA 22311

We are not able to publish all letters and reserve the right to edit them. Although we will honor requests for anonymity, all letters to *Diabetes Forecast* must include your full name, city, and state.

Reply All

ONE THING THAT struck a chord with me in Dee D'Haem's piece was her comment "I was no longer normal. I had a chronic disease that demanded my constant attention."

I somewhat disagree that having diabetes makes you no longer "normal." Normal, my parents taught me, is what makes you comfortable. I have had type 1 since I was 22 months old (I'm now 28 years old), so my "normal" is being diabetic, testing my blood sugar, and injecting Humalog in public. My parents have always been the greatest and most supportive team, making me feel that what I do to live is normal.

Yes, diabetes is a tricky disease, and it makes you want to scream and curse your body, but think of it this way: This "new normal" makes you much more knowledgeable about the food you eat than if you didn't have diabetes.

Keep your chin up and your support system close because you never know when you'll need to reach out!

Eileen Culp, Lancaster, Pa.

Brittle Diabetes?

THE MARCH DIABETES FORECAST is the first issue I have received, and I found it quite interesting that your cover asked, "Does Brittle Diabetes Exist?" ["On the Level," p. 30].

I was diagnosed with type 1 diabetes in 1977 at 7 years old. When I was 15, I began experiencing complications related to my diabetes and glucose levels, and was diagnosed with brittle diabetes. My blood sugars would drop dramatically and I would seize. Then there were times my blood glucose would go so high I would suffer from diabetic ketoacidosis (DKA).

It was eventually determined that the seizures were caused by the sudden drop in my glucose levels. When I was in my 30s and suffered a seizure that caused me to fracture my skull and cause frontal lobe damage, I was put on a seizure medication. The seizures did not stop completely.

To this day, with all the changes in the treatment of type 1 diabetes, I believe brittle

Continued on page 14

ASK THE EXPERTS

Should I Cut My Carb Consumption?

I am a 23-year-old woman with type 1 diabetes. I'm 5-foot-2 and about 115 pounds. I've lowered my A1C from 8.6 to 7 in the past year through exercise and cutting out refined sugars and processed foods. I'd like to reduce it to 6. I now eat roughly 30 percent fat, 50 percent carbohydrate, and 20 percent protein for 1,800 calories a day. Are there risks in reducing my carb intake to 40 percent and boosting my fat and protein a little?

Penelope Peaches, Los Angeles

Jill Weisenberger, MS, RDN, CDE, responds:

Wonderful improvement in your A1C! Having your A1C at or below 7 percent reduces your risk of eye, kidney, and nerve problems.



What to Know: There is no ideal percentage of calories from fat, carbohydrate, and protein. However, the Institute of Medicine of the National Academies recommends 130 grams of carbohydrate daily to meet the needs of the central nervous system, including the brain. You will meet that minimum even if you cut your carbs back to 40 percent of your total calories.

I am most concerned about the quality of your food choices and whether or not you are meeting your nutritional needs. In addition to eating for blood glucose control, you must eat for the health of your heart, to keep your energy up, and to prevent cancer and other chronic diseases. This means that your carbohydrate budget should include fruit, vegetables, legumes, and whole grains. My other concern is that aiming for an A1C of 6 may put you at risk for frequent hypoglycemia (low blood glucose).

Find Out More: First, talk to your health care provider to learn if an A1C of 6 is ideal for you. Second, make an appointment with a registered dietitian (RD or RDN), one who ideally is also a certified diabetes educator (CDE). This person can help you tailor a meal plan to your specific needs. Additionally, discuss the signs of hypoglycemia and the proper treatment of it.

Takeaways: No one's diabetes or lifestyle is exactly like yours, so it stands to reason that your medications and diet will be unique as well. Your health care team can help you determine your ideal blood glucose and A1C targets and a meal plan that fits your health goals, food preferences, and lifestyle.

FREE MAIL ORDER DELIVERY OF BRAND NAME METERS AND ALL TESTING SUPPLIES

Diabetic Care Services & Pharmacy® is a
National Competitive Bid Winner for Mail Order Diabetes Supplies,
like Glucose Monitoring Systems from OneTouch®:

Choose with Confidence.
Choose OneTouch®.



**OneTouch®
Ultra® Test Strips**

DoubleSure™
Technology checks
each blood sample
twice



**OneTouch®
UltraMini®**
Small, simple
and fast



**OneTouch®
Ultra® 2**
Easy to read

OneTouch® is the #1 brand
recommended by Endocrinologists.
OneTouch® testing supplies are
always covered by Medicare Part
B and have a \$0 Out-of-Pocket
expense with most supplemental
insurance plans.*

ASK FOR OUR
**NO CHARGE
OneTouch®
STARTER KIT.**

Call Diabetic
Care Services®
now to see if
you qualify.*

diabetic®
care services
& pharmacy

*Not a guarantee of coverage and payment. Coverage and payment may be subject to co-insurance, deductible, and patient eligibility requirements.

www.DiabeticCareServices.com
1-866-982-0632



Member of the Better Business Bureau

©2014 Care Services Inc.



HQAA Accredited



Reply All

Continued from page 12

diabetes does exist. It is a rare condition, but I live and deal with it every day. The slightest change in my routine or treatment will cause my blood glucose to drop fast or rise quickly. I hope that my letter helps others know they are not alone.

Spring Youngman, Elk Grove, Calif.

Affording Insulin

LINDA BRATTEN WROTE in about the high cost of insulin for someone, like her, in Medicare's "donut hole" [March '14, p. 14].

Medicare beneficiaries with limited resources may be eligible for extra help to pay for their share of prescription drug coverage.

For information, go to ssa.gov/extrahelp or call 1-800-772-1213.

Debra Monteith, Pooler, Ga.

I HAVE THE same problem as Linda Bratten, but I take two different insulins and they are \$750 each. I hit the "donut hole" during the second quarter of the year.

My endocrinologist suggested that I could go to the 70/30 mix of insulin. That would cut my cost to just one insulin, but you lose some control over your sugar.

My insurer suggested I request a "tier exemption" to reduce the cost of my insulin. This I did, and I'm waiting for the result. I can only hope this works.

Charles R. Yost, Sr., Coplay, Pa.

I GET WALMART-BRANDED ReliOn insulin for \$25 a vial.

Jon Downey, Pottstown, Pa.

I'D SUGGEST TO Linda Bratten that if she's taking a rapid-acting insulin such as NovoLog or Humalog, she should ask her doctor to switch to a Regular insulin such as Novolin or Humulin. It works the same way. It just takes a little longer to take effect.

For me it was well worth planning my injections a bit further in advance of meals—Regular costs a fraction of what the rapid-acting insulins do.

Marte Brengle, Burbank, Calif.

Medical Alert Cards

WHAT A GREAT article in the January issue on helping first responders identify medical emergencies ["Law, Order, and Lows," p. 22]! As a type 1 diabetic for the past eight years, though I have educated my family and friends on signs of low blood sugar and how to treat it, I have wondered how a stranger would know what to do in an emergency. Thanks for all the American Diabetes Association does and for making *Diabetes Forecast* my favorite read each month.

Sharon Brian, Winnfield, La.

The Editors respond: Readers can request a medical alert card by calling 1-800-DIABETES (1-800-342-2383).

Wins on the Job

AS ONE PARAMEDIC to another, I must say: Way to stick to your guns, Daniel O'Hern ["A Workplace Victory," Feb. '14, p. 11]. I started my paramedic career in 2001, and then in 2009 I was diagnosed with type 2 diabetes. I was devastated, thinking my time was over.

My company went to bat for me, and I was allowed to keep my job. All they asked in return was that I check my sugar regularly and keep a source of fast-acting glucose on hand to treat any lows.

I sincerely appreciate your printing Daniel O'Hern's story. May both of our experiences serve as inspiration for others.

*Michael McWilliams, EMT-P
Mulga, Ala.*

Dreams Achieved

I'VE LIVED WITH diabetes for 66 years. I am from a small town in Montana, and as a girl my dreams were to be a teacher and to have a daughter named Beth.

When I was 17, I was told at high school that I would never be a teacher because "you would have to stand on your feet all day, and a diabetic can't do that." I was also told that I would never have children because of my diabetes.

Well, I retired at age 75 from teaching at a four-year college, and I have my very own daughter named Beth, plus a son, Mike. I've been very blessed.

Pat McAlister, Lakewood, Colo.

Advocacy Is a Text Away

It's never been easier to Stop Diabetes®. You can become a Diabetes Advocate today. Just text ACTNOW to 69866, or visit diabetes.org/takeaction, to raise your voice and speak up for the rights of all people living with diabetes. Text by June 19 and start advocating!

● Walk together as a family. It's a great way to bond and spark healthy habits that will last a lifetime! diabetes.org/stepout



Diabetes Forecast® presents ...

America Gets Cooking to Stop Diabetes®!

During a record-breaking turnout at American Diabetes Association EXPO® Chicago on April 5, attendees participated in the debut of an exciting new program.

FOOD!

- ▶ Cooking demo by Diabetes Forecast Food Editor Robyn Webb, MS, LN, an award-winning cookbook author and cooking instructor
- ▶ Tasty samples of Robyn's healthy recipes
- ▶ Recipe cards from the magazine
- ▶ The opportunity to personally meet Robyn and have her sign copies of her cookbooks, *The Diabetes Comfort Food Cookbook* and *The Smart Shopper Diabetes Cookbook*, published by the American Diabetes Association



Food Editor Robyn Webb (far left) and Editorial Director Kelly Rawlings enjoyed celebrating healthy living with visitors to EXPO Chicago.

SAMPLES!

- ▶ Free three-month subscription to *Diabetes Forecast* magazine
- ▶ Colorful tote bags



FUN!

- ▶ Attendees, adorned with outrageous hats and other accessories, posed for the cover of *Diabetes Forecast* magazine and received a free souvenir photo.



FRIENDS!

Thank you to all our friends—those we knew already and those we enjoyed meeting for the first time at EXPO Chicago!

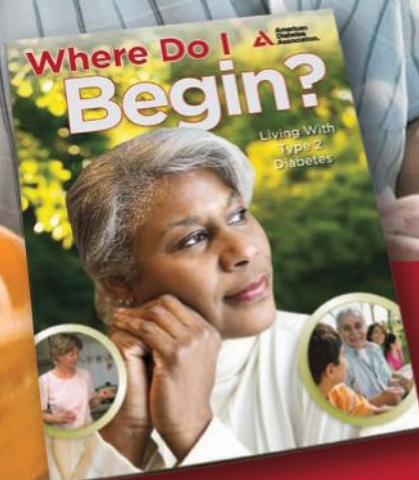


New to diabetes?



Enroll in the FREE **Living With Type 2 Diabetes program.**

**Living With
Type 2 Diabetes**
is a free, 12-month
program that offers
information and
support to help
people learn about
diabetes.



Learn more about the program
and enroll today at
diabetes.org/freeprogram
or call 1-800-DIABETES



Discovery



Don't Wait

KIDS

● Childhood weight plays a major role in future obesity, according to a study of more than 7,700 kindergartners. Researchers measured the kids' height and weight seven times during the course of nine years and found that children who were overweight in kindergarten were four times as likely as normal-weight kids to become obese by age 14.

In fact, nearly half of all cases of obesity observed between kindergarten and eighth grade occurred in children who were overweight at 5. This major study suggests efforts to curb childhood obesity need to start before kids enter school.

SOURCE: *The New England Journal of Medicine*, Jan. 30, 2014

DIABETES

GENETIC SAFEGUARD

People who are overweight or elderly are at increased risk for type 2 diabetes, but many people who carry extra weight or reach an advanced age never develop the disease. Scientists discovered

a gene that may help explain why some people are protected from type 2. Genetic tests from 150,000 people revealed that those who carried mutations that destroyed the function of an

insulin-storage gene called SLC30A8 had a 65 percent lower risk of developing type 2 diabetes. The researchers don't know how the mutations helped keep people healthy, but they say that

creating new drugs to block SLC30A8 could benefit people with type 2 diabetes.

SOURCE: *Nature Genetics*, published online March 2, 2014

WEIGHT LOSS

Type 1 and Weight-Loss Surgery

Weight-loss surgery for severely obese people with type 2 diabetes can improve health, but little is known about how the procedures affect those with type 1.

A small study suggests that in obese people with type 1 diabetes, weight-loss surgery can improve blood glucose control and heart health.

Researchers analyzed data from 10 weight-loss surgery recipients with type 1 diabetes who had an initial average body mass index of 46 (for example, a person who is 5-foot-8 and 300 pounds). Three years after surgery, participants had lost 60 percent or more of excess body weight, improved cholesterol and blood pressure, lowered their A1Cs from 10 to 8.9 percent on average, and cut their insulin use in half. Larger studies are needed to draw any final conclusions about the role of weight-loss surgery in type 1 diabetes.

SOURCE: *Diabetes Care*, March 2014

The Lowdown

Too much insulin can cause severe blood glucose lows (hypoglycemia) that require the assistance of others, but no one knows how often these dangerous episodes occur. To get an estimate of hypoglycemia rates in the United States, researchers analyzed admissions data between 2007 and 2011 from 63 hospitals spread across the country. They found that there were almost 100,000 emergency room visits for hypoglycemia each year, with almost a third leading to hospitalization. People ages 80 and older were at twice the risk for a hypoglycemia-related emergency room visit and at five times the risk for hospitalization compared with younger people. Insulin mix-ups and skipped meals were the most common reasons for blood glucose lows.

SOURCE: *JAMA Internal Medicine*, published online March 10, 2014

Emergency

Gender Inequality

● Poor blood glucose control is linked to a greater risk for stroke in women—but not men. That's what researchers found when they studied more than 30,000 adults with newly diagnosed type 2 diabetes. Women with higher A1Cs were more likely to have a stroke during nearly seven years of follow-up than those with in-range levels. Compared with women whose A1Cs were between 6 and 6.9 percent, women with A1Cs between 9 and 9.9 were 32 percent more likely to have a stroke. Women whose A1C hit 10 percent or above had a 42 percent higher stroke risk. The association was stronger in women over 55 years old. The link between higher blood glucose and stroke risk wasn't significant in men, but previous research has shown that a high A1C increases their heart attack risk.

SOURCE: *Diabetologia*, February 2014



SAFE FOR NOW

Some data have suggested that incretin-based medications—DPP-4 inhibitors, such as sitagliptin (Januvia), and GLP-1 agonists, such as exenatide (Byetta)—are associated with the development of pancreatitis and pancreatic cancer. Over the past year, the Food and Drug Administration (FDA) and European Medicines Agency (EMA) independently evaluated the safety of these medications using all the available data, including studies in both animals and humans. The FDA and EMA said that the evidence did not support the claim that incretin-based medications cause pancreatitis or pancreatic cancer, though the agencies will continue to study the safety of these medications.

SOURCE: *The New England Journal of Medicine*, Feb. 27, 2014



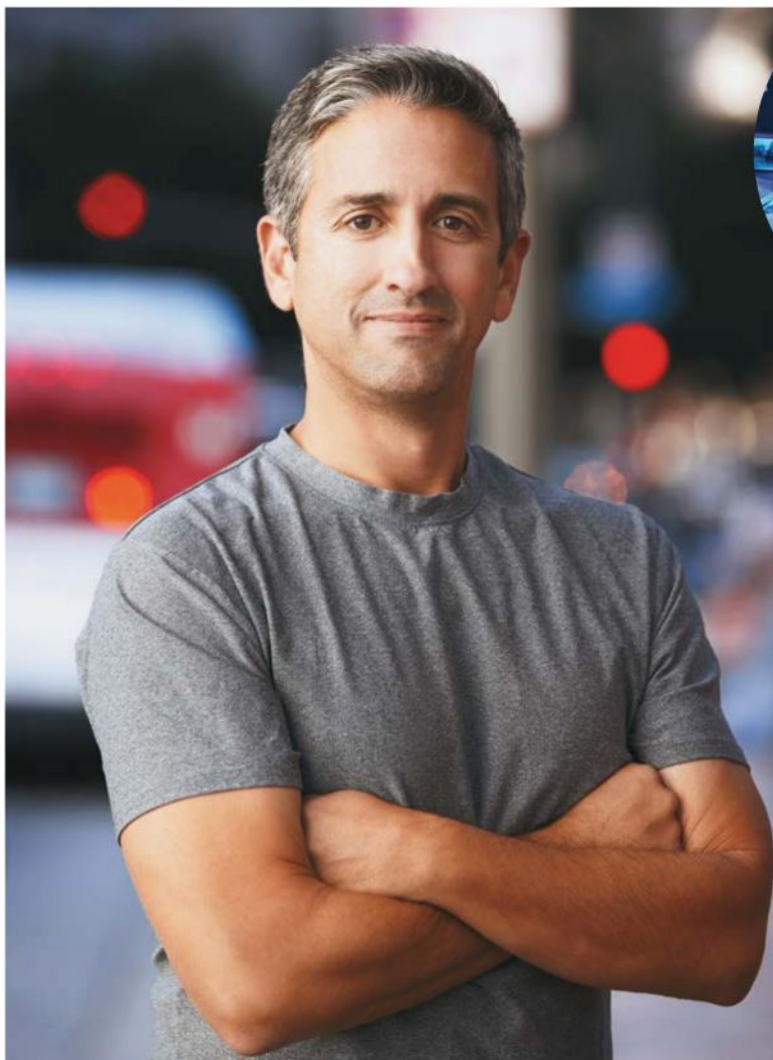
Boosting Blood Flow

Working out may do more than build muscles. A small study found that aerobic exercise increases blood vessel growth in muscle tissue and improves insulin sensitivity in people at high risk for type 2



diabetes. Insulin travels around the body in the circulatory system, so having more blood vessels means that insulin can better reach the body's cells to lower blood glucose levels. In the study, 16 overweight or obese older adults with elevated blood glucose levels participated in a six-month exercise and weight-loss program. By the end, participants had more capillaries in their muscles than when they started out, which helped their bodies use their own insulin more effectively.

SOURCE: *Diabetes Care*, published online March 4, 2014



Brain Exercises

● How fit you are may predict your dementia risk. Nearly 3,600 men and women were asked to rate their fitness at midlife (an average age of 50) and then twice more over the next 30 years. Researchers tested participants' cognitive function and collected data on dementia diagnoses. People who reported poor physical fitness at midlife were four times as likely to develop dementia as those who had good fitness at middle age. The link between poor midlife fitness and later dementia was especially strong in those with chronic conditions such as cardiovascular disease and rheumatoid arthritis. A decline in fitness after midlife also was associated with a greater dementia risk.

SOURCE: *Journal of Internal Medicine*, published online Jan. 20, 2014



AT REST

Obese Americans get barely any vigorous activity, a study shows. Researchers used survey data on nearly 2,600 adults between the ages of 20 and 74 to find how much light, moderate, and vigorous exercise participants did each day. When it came to vigorous exercise, obese adults were less active than their normal-weight and overweight peers.

Obese women got only an hour of vigorous exercise a year while obese men did only slightly better: 3.65 hours of vigorous exercise yearly. Participants of all sizes were sedentary most of the time—even more hours per day than they spent asleep.

The bottom line for health: Sit less, move more.

SOURCE: *Mayo Clinic Proceedings*, December 2013



Not So Sweet

● Fatty foods often get cited for promoting heart disease, but a study suggests that added sugar deserves at least part of the blame. Added sugars (see list, below) are often included in processed foods, even those not considered sweet (pasta sauce, bread, etc.). Researchers studied the eating habits and health of 12,000 people for an average of 15 years. Participants who got more than 25 percent of their calories

from added sugars were 2½ times more likely to die during the study from heart attacks and strokes than those whose added-sugar calories made up less than 10 percent of their diet. To find added sugars in foods, get familiar with the different types of sugars and check the ingredient list on the label.

SOURCE: *JAMA Internal Medicine*, published online Feb. 3, 2014



Grain Alternative

A study confirmed that people with celiac disease who include quinoa, a nutritious South American seed, in their gluten-free diets can do so safely. That's what researchers learned from a study of 19 people with celiac disease, an autoimmune disorder that affects food absorption and is triggered by consuming gluten found in wheat, rye, and barley. Participants were asked to eat 50 grams (about 1.8 ounces) of quinoa daily for six weeks as part of their typical gluten-free diet. They received a series of tests and kept a symptom diary, all of which confirmed that **eating quinoa didn't worsen celiac disease.**

The authors say the finding is promising, though further research is needed to learn the long-term effects of quinoa on a gluten-free diet.

SOURCE: *The American Journal of Gastroenterology*, published online Jan. 21, 2014

CLIP AND SAVE

Sugar Sleuth

The sugars on a product's Nutrition Facts panel include both naturally occurring and added sugars. To see if the product has added sugars—a major source of excess calories—look for any of these terms in the ingredient list:

Agave nectar	Dextrose	Maple syrup
Anhydrous dextrose	Evaporated cane juice	Molasses
Beet sugar	Fructose	Pancake syrup
Brown rice syrup	Fruit juice concentrates	Powdered sugar
Brown sugar	Fruit nectars	Raw sugar
Cane crystals	Glucose	Rice syrup
Cane sugar	High-fructose corn syrup (HFCS)	Sucrose
Coconut palm sugar	Honey	Sugar
Confectioners' powdered sugar	Invert sugar	Sugar cane syrup
Corn sweetener	Lactose	Syrup
Corn syrup	Maltose	Table sugar
Corn syrup solids	Malt syrup	Turbinado
Crystalline fructose		White granulated sugar

Eyes Need Water.

Proclear® 1 day Contact Lenses Attract Water.

Natural Comfort by Design.

Dry eyes are a common problem for people living with diabetes. Which is why CooperVision **Proclear® 1 day** contact lenses may be uniquely suited for you.



They're the only lenses with the FDA indication: **"May provide improved comfort for contact lens wearers who experience mild discomfort or symptoms related to dryness during lens wear."***

Proclear 1 day lenses use exclusive PC Technology™ to capture a protective film of water – in the same way human eyes do.

So if you've always thought you couldn't wear contact lenses, think about Proclear.

- Keeps lenses comfortably hydrated
- Reduces deposits, helping eyes stay irritation-free
- Adds up to all-day-comfort in an affordable 1 day lens

For more information or to request a **FREE TRIAL**, visit coopervision.com/diabetes



CooperVision®
Live Brightly.®

*Evaporative Tear Deficiency or Aqueous Tear Deficiency (non-Sjogren's only).

©2014 CooperVision, Inc. 01000 03/14



weight loss



Weekend Weight

● Weekend splurges are not at all unusual, but your ability to lose or maintain weight depends on how quickly you get back to healthy eating and exercise. Researchers asked 80 adults to weigh themselves daily before breakfast and then followed participants' weight fluctuations for between 15 days and almost a year. In general, people weighed more after the

weekend. But those who lost weight over the course of the study were those who got back on track more quickly after weekend weight gain. If you want to lose or maintain weight, compensate for pounds gained on the weekend by eating less and being active starting first thing Monday morning.

SOURCE: *Obesity Facts*, published online Jan. 31, 2014

DIET DECEPTION

Think diet soda will help you slim down? Not necessarily. Using data on nearly 24,000 adults, researchers looked at the link between diet-beverage consumption and body weight. Normal-weight participants who drank diet beverages consumed fewer calories from

food than those who guzzled sugary drinks. But among overweight and obese adults, those who drank diet drinks canceled out calorie savings by eating more calories from food compared with those who drank sugary drinks. The bottom line:

Opting for diet drinks is a good first step, but focus on healthful eating, too.

SOURCE: *American Journal of Public Health*, published online Jan. 16, 2014



GUT CHECK

Probiotic supplements containing “friendly” bacteria may help women lose weight. A study included 125 obese men and women who took either a probiotic supplement, containing a strain of *Lactobacillus rhamnosus*, or a placebo without probiotic bacteria during a 12-week weight-loss program and a 12-week weight-maintenance period. After the first 12 weeks, women taking the supplement had lost an average of 10 pounds, while those on placebo shed 6 pounds. During the weight-maintenance period, the female probiotic users dropped 2 more pounds on average, while the weight of placebo takers reached a plateau. Men did not seem to benefit from the probiotic.

SOURCE: *British Journal of Nutrition*, published online Dec. 3, 2013



Long-Lasting Effect



● It's no secret that exercise provides countless health benefits, but for youth with type 1 diabetes it can also pose a risk. Researchers studied the effect of moderate to vigorous exercise in 14- to 20-year-olds with type 1 diabetes. For three to five days, the 19 participants wore accelerometers to measure their activity and continuous glucose monitors (CGMs) to track glucose levels. Participating in moderate to vigorous exercise was linked to a greater risk for hypoglycemia (blood glucose at or below 70 mg/dl) overnight and during the following day. Keeping in mind the extended effects of exercise on blood glucose may help you adjust insulin and food to aid in preventing lows.

SOURCE: *Diabetes Care*, published online Feb. 26, 2014

HARMFUL HABIT

Your cigarette habit may do more than compromise your lungs: It might put your children at risk for future heart problems. For almost three decades, researchers followed nearly 3,800 people who were between 3 and 18 years old at the start of the study to see if there was a link between whether their parents smoked and the thickness of participants' arteries in adulthood. **Participants who were exposed to cigarette smoke from both parents had significantly thicker (less healthy) carotid artery walls than those who grew up in nonsmoking homes.** The difference in vascular health for people with two smoking parents was the equivalent of being 3.3 years older than the children of nonsmokers. The findings are significant because thickening of the arteries is an early sign of heart disease, which puts people at risk for heart attacks and strokes.

SOURCE: *European Heart Journal*, published online March 4, 2014

KEEP INSULIN COOL & SAFE! No Ice Packs... Ever Again!



The FRIO® is a re-usable evaporative cooler that keeps insulin safe without ever needing ice packs or refrigeration* - even in temps of 100°F or more!

- Activates with water!
- Keeps insulin, Byetta and Victoza safe in hot weather for approximately two days - *then just reactivate!*
- Great for travel - TSA friendly
- A **MUST** for emergency preparedness
- Sizes for Vials, Pens & Pumps
- Low cost

ORDER TODAY!!!

www.FRIOCase.com

SPECIAL DISCOUNT! - **COUPON CODE "DF"**

(888) 909 - 7737

*Insulin to be stored beyond 30 days should be refrigerated

First Defense

Tips for creating and using a first-aid kit | By Tracey Neithercott

When it comes to your health, preparing for the worst isn't pessimistic. It's smart. That's why experts advise everyone to stash medical supplies for a rainy day. Or, you know, a day when you've just sliced your finger, sprained your ankle, or broken out in hives.

A well-stocked first-aid kit is easy to prepare and useful in both minor and more serious emergencies. The bathroom may seem like the ideal spot to stash the essentials, but because of heat and humidity, it's not the best place to keep medicine or many diabetes supplies. Instead, store your first-aid kit in a room where you spend a lot of time or in an easy-to-reach area of a closet.

Creating your own kit is easy. Start with a waterproof container, then add the supplies listed (opposite). As far as medications go, experts recommend adding baby aspirin to the mix, which can help during a heart attack. (After calling 911, chew four baby aspirin or one non-coated adult aspirin. Chewed aspirin works faster than swallowed pills.) There's less of a consensus about other medications. Those that must be kept cold, such as insulin,





✂ CLIP AND SAVE

In the Kit

The following supplies make for a comprehensive first-aid kit.

General

- Adhesive cloth tape
- Alcohol-based hand sanitizer
- Aloe vera gel for burns
- Antibiotic ointment
- Antiseptic wipes
- Bandage roll (such as an Ace bandage)
- Bandages in assorted sizes (such as Band-Aids)
- Calamine lotion
- Compact mobile splint
- First-aid guidebook (such as American Red Cross Pocket First Aid)
- Gauze pads
- Hydrocortisone ointment
- Instant cold packs or plastic bags for ice (1 quart or 1 gallon)
- Latex-free face shield
- Latex-free gloves
- Low-dose aspirin (such as baby aspirin)
- Scissors
- Thermometer
- Triangular bandages (for slings)
- Tweezers
- Wound wash (such as saline solution)

Diabetes

- Batteries (for meters, pumps, and continuous glucose monitors)
- Blood glucose meter
- Fast-acting glucose (such as tablets or gels)
- Glucagon kit
- Infusion sets for pumps
- Injection pen needles
- Insulin syringes
- Lancets
- Skin prep wipes
- Test strips (for blood glucose and ketones)

4 C's of Wound Care

1

Clean the wound with soap and water or using a wound wash, such as saline solution.

2

Coat with antibacterial ointment, such as Neosporin.

3

Cover with a bandage.

4

Call for a doctor's appointment to follow up if needed (if you need stitches, for example, or the wound shows signs of infection, such as redness and pus).

don't need to be included. Others, such as cough syrup, ibuprofen, and antidiarrheal drugs, can be added to the mix.

The tricky part is keeping items current. "If you're going to put medications in there, anything that can potentially expire, you want to check that often," says David Berry, PhD, ATC, an athletic trainer, professor at Weber State University, and member of the American Red Cross Scientific Advisory Council. He recommends reviewing the items in your first-aid kit at least twice a year and replacing anything that is expired.

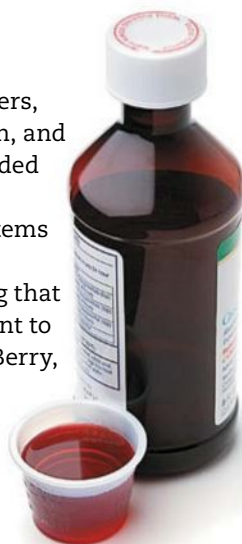
Also remember to refill the kit as you use items in it. "The problem is, people take things out, they use them, and they don't replace them," Berry says. "[You] need to replace those items so in case an event transpires, [you] have the equipment readily available again."

Wound-care products are some of the most important items in your kit. Irrigation solution, for instance, is helpful for cleaning wounds of dirt, debris, and bacteria. That's a particularly important step for people with diabetes, who are more susceptible to infection.

Berry says plain soap and water will do the trick, but it's smart to store saline solution in your kit, which comes in handy when you can't make it to the sink. Noticeably absent: hydrogen peroxide. Neither that nor alcohol is useful for cleaning wounds. "If you look at the research, they actually destroy some of the healthy cells," he says. "You don't want to destroy the healthy tissue."

Another aspect of building a first-aid kit you'll want to pay attention to: your family's allergies. Is someone allergic to latex? Stock non-latex gloves and bandages. Do you have an allergy to certain antibiotic ointments? Be careful to stash the right type in your kit.

For diabetes, take extra precautions. You can't store insulin in a first-aid kit because it needs to be refrigerated before opening. But you can stock other supplies, such as a



Medications (Optional)

While it's not entirely necessary to store medications in a first-aid kit (aside from aspirin, which is crucial during a heart attack), it may be a good idea to include the following. When you hit the road, grab your kit. That way, if you're ill but can't find a pharmacy, you'll have the basics on hand.

- + Antacid
- + Antidiarrheal (such as Pepto-Bismol*)
- + Antihistamine (such as Benadryl)
- + Cough syrup
- + Decongestant
- + Ibuprofen

*Or your doctor may prescribe a just-if-needed antimicrobial medication, such as tetracycline.

backup meter, extra insulin pump infusion sets, batteries for any devices you use, fast-acting glucose and glucagon for lows, syringes and pen needles, lancets, and a backup container of test strips (just be sure to use them before they expire!).

Finally, keep a list of emergency phone numbers in your kit, such as the poison control center and your doctors' offices.

If you've injured yourself, make a follow-up appointment with your health care provider. First aid is essential, but it's only the first step in the process. Continued care can ensure you stay safe in the long run.

● Good walking shoes are essential for making strides! To train for Step Out, work up to at least 30 minutes daily of walking. That's great for blood glucose control, too. diabetes.org/stepout



The OmniPod advances insulin pump therapy. Again.

Now 34% smaller,
25% lighter and
16% slimmer >



The tubing-free OmniPod® Insulin Management System is made up of just two easy-to-use parts. And now it's even smaller, slimmer and more discreet than ever. With its advanced technology, the OmniPod makes managing diabetes easier. So you can take care of your long-term health while making diabetes a smaller part of life. **Try our free Demo and ask your healthcare provider about the next-generation OmniPod today.**

“My life definitely feels easier. I feel more in control.
I’m not constantly thinking about my diabetes.”

— Austin, OmniPod Wearer.

Try a FREE Demo Kit today!

Visit MyOmniPod.com/TryIt or call 866-605-4763.

Doctor Turns Patient

| By Sarah Eisenstein Stumbar, MD, MPH

The first time I gave myself an insulin injection, I was 26 years old, sitting in the Stony Brook endocrine clinic in my green scrubs. The attending physician, a doctor whom I knew well from the many Sunday afternoons I had spent managing our student-run free clinic, showed me how to screw the needle onto the insulin pen, dial out my first 10 units of Lantus, and grab a roll of my flesh to inject into. Five minutes later, I was walking out into the large parking lot surrounding the office building, with insulin pens, needles, blood glucose meter, lancets, and glucagon rescue kit filling my shoulder bag. I slipped into the driver's seat of my car and took a deep breath. *There was no way that I could do this for the rest of my life.* And my body started to shake with tears.

There had been months of symptoms leading up to that moment of grief in the parking lot. I had spent all of residency interview season downing glass after glass of water and searching for the nearest bathroom. For much of my life, my family had jokingly called me a “camel,” because I drank very little and peed even less frequently. But that was definitely not me anymore. I started to get up in the middle of the night because I was so thirsty, and I began to joke that maybe I had diabetes. A few weeks later, my clothes started to hang differently on my thinning frame. I didn't want to run to the doctor's office, though, and be that “crazy medical student” who thought she had any and every disease imaginable. So I kept drinking gallons of water, running to the bathroom a dozen times a day, and agonizing over my rank list for residency.

A few months went by and I was heading back to Long Island for the last three months of medical school. I visited my parents for a night. As I drank a full pitcher of water at dinner, my mom noted how much thinner I had become. Her concern was palpable to me. I had been religious in my daily



one-hour gym workouts since my first year of college, but I had never lost much weight. It seemed as if something had changed.

Next, I volunteered for an afternoon shift at our student-run free clinic. I remember debating in my head whether it was worth doing a finger-stick glucose reading on myself. I asked one of the first-year medical students to do it, but she laughed at me, apparently uncomfortable. So, with my heart pounding, I did my first finger stick on myself. I've probably done about 3,000 finger sticks since then. The block numerals of the meter flashed “371” before turning off. And that was how I found out that I had diabetes—a random glucose reading over 200 mg/dl with symptoms. I definitely did not know what to do with myself in that moment. I went outside and called my mom and my boyfriend, and told them what the meter had said.

I am pretty sure that I couldn't bring myself to use the word “diabetes.” Putting a name to my symptoms seemed way too

Sarah Eisenstein Stumbar, MD, MPH, is a primary care doctor in residency at Montefiore Medical Center in the Bronx, N.Y.



real. It was as if I was looking at someone else, who was talking about someone else. I remember the wind of the February day whipping around me; I had left my coat inside. In my head, I was definitely telling them about someone else—a patient, perhaps one whom I had just skillfully diagnosed with diabetes. Then I went back inside and saw patients for the rest of the clinic afternoon.

There are so many other stories that I could tell about my first two years living with diabetes. There was the doctor at student health services who, two days after I took that first finger stick, gave me a prescription for metformin and told me to lose weight. There was the first time I felt the shaky giddiness, nausea, and slowed thinking that warn me of hypoglycemia (low blood glucose). I was in the middle of the Stony Brook cafeteria and downed an entire bottle of orange juice. A few hours later, my meter read a value over 300. I quickly learned how to correct for hypoglycemia without making myself grossly hyperglycemic. I count the carbohydrates in everything that I put in my mouth. I will have to do this for the rest of my life.

During those first months, there was the diabetes educator, herself a young woman with diabetes, who spent many hours teaching me how to insert her company's insulin pump infusion set into my abdomen and how to manage its many intricate settings. There was the Saturday afternoon when I taught my boyfriend how to load my pump with insulin and insert an infusion set—and neither of us could stop crying. I put a new infusion set into my abdomen every three days. It now takes me about two minutes to do the entire process. But some days, I still end up with blood dripping down my stomach or a faulty insertion site that requires a do-over.

Then, finally, about four months after my diabetes diagnosis, there was the day that I

met all of my new co-residents for the first time. I realized that they had never known me before diabetes. And I missed that person.

The moment I sat in my car in the parking lot of the endocrinologist's office is, in many ways, my defining moment of diabetes. I grieved for an ease of life that I hadn't even yet realized I had lost. I grieved for the nights that I would get home from clinic at 10 p.m. and still have to change my insulin pump insertion site; for the bags of granola bars packed for every vacation; for the calluses that have formed on the sides of my fingers. I grieved for the bowls of pasta and for the pizza platters. I grieved for dresses, which are so much harder to wear with an insulin pump strapped to my thigh. I grieved for the thought of a high-risk pregnancy in my future. It is in these ways that diabetes is a part of my everyday reality, much more so than my A1C or urine microalbumin (a test of kidney function) or most recent LDL cholesterol level.

I sit in clinic, now, across from a patient with diabetes, and try to figure out a way to help her live her life with diabetes. I suggest eating that sandwich with only one piece of bread; doing her finger sticks on the side of her fingers, where it's likely to hurt less; and keeping juice boxes by her bed, as a way to stave off occasional hypoglycemia.

We talk all the time about a patient-centered approach to medicine. The most patient-centered approach to diabetes is one that recognizes how much diligence it takes to be a "well-controlled" person with diabetes. It is endless, unforgiving, constant, and it goes on forever. I deeply respect my patients who manage their diabetes well, and I empathize with those who cannot.

There is no easy end to this story except, perhaps, that this is the end of the beginning. I live with diabetes every day.

**I DEEPLY
RESPECT**
my patients
who manage
their diabetes
well, and I
empathize
with those
who cannot.



Start with a solid foundation, in a chair with no wheels or arms.

Take a Seat

A full-body, sit-down workout that's good for your heart and other muscles? Yes!

By Lindsey Wahowiak | Illustrations by David Preiss

The road to exercise might begin with the first step, but for people with neuropathy (nerve damage), foot complications, balance issues, or lack of mobility, steps in general might be hard to take. You can still get a good workout in your chair, and that's vital, says LeeAnn Langdon, an American Council on Exercise (ACE)-certified personal trainer and senior fitness specialist. "If there is such a thing as a fountain of youth, and a fountain of health, regular, moderate exercise is it," she says. "It's like the best drug you don't even have to buy."

If you're already an avid exerciser, these moves might not make you work up a sweat, but if you're new to exercise or need to get back in the game, sit up straight and put on some motivational music. It's time to do your body some good.

1



GET READY. Focus on posture: Sit on your sitz bones (if you sit on your hands, you can probably feel them) rather than your tailbone. Tighten your belly (think about bringing your belly button toward your spine), lift the rib cage, hold your neck long and straight, and tuck your chin down and back so you feel a long stretch on the back of your neck. “Feel like you have a string pulling up from the top of your head,” suggests Mary Ann Wilson, RN, an ACE-certified trainer and host of *Sit and Be Fit* on PBS for almost 27 years. Breathe from the belly (you want your stomach to expand, not just your chest). That alone can be a tough position to hold at first! But work to build it up, because you’ll need it for every other move you do.

2



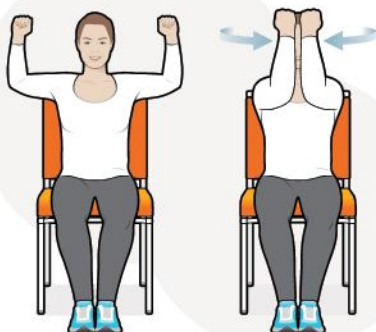
MARCH IN PLACE. While you’re holding an upright posture, march in place with your seat firmly planted. Swing the opposite arm as you march each foot forward. Anne Pringle Burnell, an ACE- and Aerobics and Fitness Association of America-certified trainer and founder of Stronger Seniors, suggests alternating marches with toe taps and heel taps. “An easy choice for [adding] aerobics is when you reach and tap one toe forward, reach hands forward at the same time,” Burnell says. Use either the same or opposite arm or both arms at once. “You can reach higher and higher, or do a little boxing maneuver with jabs, uppercuts, a cross punch, and a hook.” If you’re new to exercise, marching in place with arm movements for 20 minutes will get your heart rate pumping to aerobic levels.

3



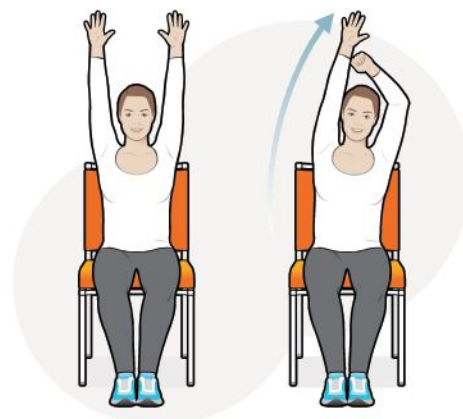
SEATED JUMPING JACK. It’s no great leap to modify some traditional moves. Nicole Nichols, an ACE-certified personal trainer and fitness expert at sparkpeople.com, recommends the seated jumping jack. Start with knees bent and arms resting at your sides; then extend your legs, straight and wide, with heels on the floor, and raise your arms in a V. Then bring your limbs back to the center. Repeat for several minutes. “It does actually elevate the heart rate and give you an aerobic benefit, but the key is to do it long enough—at least 10 minutes or so,” Nichols says.

4



DO THE “PEEKABOO.” This will work your entire upper body, says Langdon. Form a goalpost with your arms: Keep your upper arms (shoulders to elbows) parallel to the floor and your lower arms (elbows to hands) perpendicular to it. Bring your forearms together in front of your face. Return your arms to the starting point, squeezing your shoulder blades together, and repeat as long as you can hold proper form. Your back, chest, and arms will get a workout.

RELEASE SOME TENSION. “Take a little back break during the day!” Burnell says. This move works well even for office folks who have to sit at a desk, says Burnell. With the best posture you can muster, stretch and reach your arms overhead so that you’re lengthening your spine. Alternate moving your hands as though you’re climbing a rope, pulling yourself up. You’ll notice that you’re getting movement in your rib cage and spine. “This is a great exercise to get people to not squish their spines,” Burnell says.



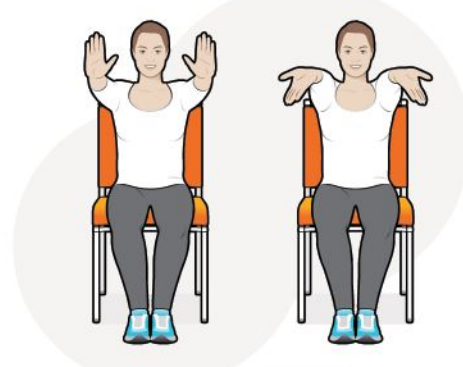
5

MOVE YOUR JOINTS. “We need to lubricate the joints, which means moving those joints in a gentle way,” says Wilson. She says to get synovial fluid (the liquid that protects joints) moving, picture a sponge between each joint: When you flex it, you wring it out, and when you relax it, liquid is let back in. Shoulder rolls are great for this because they make four major muscle groups meet. Bring your shoulders forward, up to your ears, back, and then relax. Repeat as long as it feels good. Before you switch to roll your shoulders backwards, Wilson suggests letting your arms hang and swing gently, like pendulums. “It’s great for the rotator cuff,” she says. “Lubricating that joint with that pendulum move is something just about everybody can do.”



6

FOCUS ON EXTREMITIES. Langdon suggests working the wrists first. Hold your arms straight in front of you and flex the wrist, as though you’re saying “Halt!” Then rotate your palm so your fingertips point toward the floor. Repeat until you feel the stretch. When working the ankles, Langdon suggests drawing letters of the alphabet with each foot. “Spelling your name, writing love notes to [your] sweetie, whatever! If you add resistance bands or light [ankle] weights, you can get a genuine strengthening workout as well,” she says.



7

GET HEAVY. Adding some light exercise weights (dumbbells, weighted balls, or even a soup can) or resistance bands is an important way to gain strength. Nichols suggests getting a resistance band (found at some discount stores for as little as \$3) and anchoring it by sitting on it. Now you can work your entire upper body—holding the ends of the band in your hands, try starting with bicep curls.



8

Safety Note

If you put all these moves together, you can work up to your 30 minutes of exercise per day. But if you’re not there yet or don’t have time for one longer workout, don’t fret. You can exercise in 10-minute chunks. And if you’re just starting off, start slow and listen to your body. “You should not have any pain when you’re exercising,” says Wilson. “If you go to a point of mild discomfort, then back off.”

Talk to your doctor before making any big change in your exercise plan.

The Only Thing Missing is...



If you
have
diabetes
JOIN US.



REGISTER TODAY

diabetes.org/redstrider

or call 1-888-DIABETES for more information



STEP OUT | WALK TO STOP DIABETES®



 American Diabetes Association.

National
Premier and
Red Strider
Sponsor



National
Sponsors



Walgreens
AT THE CORNER OF HAPPY & HEALTHY™



Nutrisystem® 

In Sickness and in Health

Do couples who stay together get sick together? Not necessarily | By Lindsey Wahowiak



If your partner has type 2 diabetes, does that mean you'll develop it, too? That's the question researchers tried to answer in a study from McGill University in Canada. The study, published in the January 2014 issue of *BMC Medicine*, found a correlation: The spouses of people with type 2 diabetes are 26 percent more likely than spouses of people without diabetes to also develop type 2.

Is that because partners might cultivate unhealthy eating habits and skip exercise, which can lead to an increased risk of developing type 2 diabetes? Or is it that once you know more about diabetes

Continued on page 38

Igor Emmerich/Glow Images

gravity defyer®
ADVANCED FOOTWEAR TECHNOLOGY

G-Defy Benefits

- Absorb harmful impact
- Stay comfortable & active
- Support & protect your body
- Stand & walk with greater ease

G-DEFY SUPER WALK

WIDE
WIDTH
AVAILABLE

Accommodates
Orthotic Inserts

VS2W VersoShock®
Trampoline Sole
Smart Memory springs
combined with elastic
polymers

AVS³ Ventilation System
Cools the foot and circulates air

VersoShock

Scientifically
ENGINEERED
to **DEFY**
GRAVITY



SHOES THAT WILL CHANGE YOUR LIFE... GUARANTEED!

The Ultimate Shock Absorbing Footwear



As featured in hundreds of magazines, on radio and TV nationwide, Gravity Defyer® shoes are changing lives every day. They have become a comfort phenomenon, and are being used and recommended by professionals

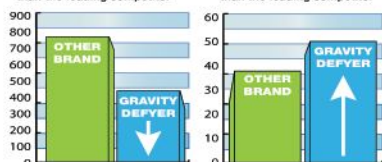
in hospitals, the food service industry, board rooms across the country and more.

A Decade of Science in Every Pair

The patented VersoShock® system was developed by Impact Research Technology and is found exclusively in Gravity Defyer® footwear. It absorbs harmful impact relieving discomfort from every step before returning energy that propels you forward. Stay more active on your feet and experience unparalleled comfort and performance.

40% LESS
Harmful Impact
than the leading competitor

19% MORE
Energy Return
than the leading competitor



SHOCK ABSORPTION STUDY HPW Biomechanics, 2012
Shock absorption: Measurement of maximum pressure (KPI).
Energy return: Measurement of energy returned (Joules).

Feel Weightless

Standing, walking, and running are easier as the VersoShock® system's energy return makes you feel lighter, like you're walking on clouds.

"I decided to fulfill a life's dream and go to China...without my Gravity Defyer® [shoes] this would have been impossible." – Eleanor W



Absorbs Shock
on Impact



Energy Return
Propels You

"After ordering and wearing your Gravity Defyer® [shoes], I have renewed faith that I will be able to continue my passion for senior softball. Thank you." – Ron B

"I work in a restaurant. Finally found the shoes that don't kill my legs and feet...Gravity Defyer® shoes are awesome!" – Diana B

Super Walk \$129.95

Men • Sizes 7.5-15

MEDIUM & WIDE WIDTHS

WHITE TB9004MWS

BLACK TB9004MBS

MEDIUM WIDTHS

BLUE TB9004MUS

GREY TB9004MGS

BLK/RED TB9004MBR

Women • Sizes 5-11

MEDIUM & WIDE WIDTHS

BLK/PURP TB9004FBP

WHT/BLU TB9004FWSU

WHT/PNK TB9004FWSP

MEDIUM WIDTHS

GRY/BLU TB9004FGA

GRY/PNK TB9004FGP

WHT/GRN TB9004FWL

**TRY A PAIR FREE
FOR 30 DAYS!**

OR

**3 PAYMENTS OF
\$43.32**

PLUS

FREE SHIPPING

COUPON CODE: MV7FFT9

Call 1 (800) 429-0039

GravityDefyer.com/MV7FFT9

Once you put on your first pair, you won't ever want to take them off! We guarantee that they will change your life, or simply return them and pay nothing.

Free Returns • Free Exchanges

*Offer valid for new customers only. Deferred billing for 30 days from the date shipped and is an option selection during checkout. Credit card authorization required. S&H nonrefundable. See website for details.

Continued from page 36

(maybe through being the caregiver or loved one of someone with the condition), you are more likely to see the symptoms of diabetes in yourself? The study didn't say. But it's clear that as a caregiver, it's vitally important that you take care of your own health in addition to looking after your loved one with diabetes. Here are steps you can take to make sure your partnership is healthy and so are you.

● **Learn about diabetes.** This might seem like a no-brainer, but understanding what your partner is going through is important in two ways: It makes you more present in your partner's life, and it helps you both feel confident in case of an emergency. Eliot LeBow, MSW, LCSW, CDE, is a New York therapist and a person with type 1 diabetes, so he's had firsthand experience involving partners in his diabetes. When he tests his blood glucose, he shares his meter reading with his loved one, for example. "My present girlfriend, she takes an active role in my diabetes, and I think that's really important," he says. So ask questions and learn how to give glucagon. (It's an injectable hormone used when an episode of low blood glucose is so severe, perhaps resulting in unconsciousness, that the person can't eat or drink glucose.) Your knowledge and skills show your partner that you care.

● **Communicate openly and regularly.** You can't ignore diabetes, but you can't make it your entire relationship, either. There has to be a mutual plan that addresses needs of both partners, LeBow says, adding: "If a couple pretends it doesn't exist, diabetes is such a chronic illness that it will tear the relationship apart." Linda Bloom, MSW, LCSW, coauthor with her husband, Charlie Bloom, MSW, of the book *Secrets of Great Marriages*, says sharing thoughts and feelings is actually part of compassionate self-care. "If you go down the road of the sacrificial martyr, you end up cranky, burnt out, and more likely to develop illness yourself," she says. Bloom suggests a motto of "Let's play team" for healthy relationships: When one person

thrives, the other is able to as well. But people can thrive only if they share their needs—and work together to meet them.

● **Make healthy changes together.**

Diabetes Forecast Reader Panel member Eric Holzman, 51, of Ellicott City, Md., has type 1 diabetes. He generally eats a lower-carb diet. His wife, Ingrid, does not have diabetes, but she can't eat gluten or pork. What's a healthy couple to do? They make meals that both can eat together. "I cook on weekends, usually prepare enough extra food to last several days, and my wife cooks the remainder of the week," Holzman says. Dining together in a way that benefits both partners' health is a recipe for success that everyone can enjoy.

● **Cultivate your relationship.** Some research shows that an intimate relationship can bolster your health. And having a net of social support is extremely important to your health, says Bloom. "A lot of studies coming out now [show] people in happy marriages have less suicides, less mental health issues [than those who are not]," Bloom says. "I can't help but believe that some of the same exact things are true for people ... with diabetes. Their lives are going to be healthier, and they're going to live longer if they have that dependable web of intimacy."

Reader Panel member Mary Pruiett of Chapel Hill, N.C., finds that to be true. She's part of the Joslin 50-Year Medalist Study, having lived with diabetes for 60 years. She's been married to her husband, Ralph, who does not have diabetes, for nearly 44 years. He's been her support system since the time before blood glucose meters. "One of the things [Joslin has] observed is the importance of having positive emotional support in order to live well with diabetes," she says. "I think it is critical. You can and should be the 'expert' in taking care of yourself, but others who are close to you can make that easier and more rewarding."

"IF A COUPLE pretends it doesn't exist, diabetes is such a chronic illness that it will tear the relationship apart."

—Eliot LeBow, MSW, LCSW, CDE

Want to get healthy as a couple? Start exercising together! Walks are a great way to relax and get fit. diabetes.org/stepout



Transform your bath. Transform your life.



The First Bath Commended
By The Arthritis Foundation



With payments as low as \$150 a month* it's the perfect time to buy your Premier Care in Bathing Walk-In Tub.

The ultimate bathing experience is more affordable than ever. Now you can enjoy the independence, security and luxury provided by America's best Walk-In Tub at a cost that fits your monthly budget. Call today toll-free and discover the difference one of our Walk-In Tubs can make in your life.

Get everything you dreamed of in a bathing experience and more.

- ✓ **More ease and independence**
Enjoy worry-free access through your bath's walk-in door.
- ✓ **More comfort and safety**
Bathe confidently with a slip-resistant surface, contoured seat and backrest.
- ✓ **More therapy for those aches and pains**
Feel the relief of our exclusive Hydrovescent air jets that gently soothe your body.
- ✓ **More choices and optional features**
Find the perfect solution for your needs with a wide range of models to fit your bathroom.
- ✓ **More luxury every time you bathe**
Make bathing a safe, comfortable and totally satisfying experience you can enjoy as often as you like.



PAYMENTS AS LOW AS

\$150

PER MONTH*



LIMITED
LIFETIME
Warranty**

** Subject to warranty terms and conditions.

Premier Care
in Bathing

Tested. Trusted. Recommended.

FREE Information Kit

Call 1-800-563-8165

Visit www.gotopremierbath.com
or complete and mail this card.

PROMO CODE 20427

Offer Expires August 31, 2014

* Purchase must be completed by contract initiation no later than August 31, 2014, and is applicable to approved finance or cash contracts. Offer can only be presented at the time of initial consultation, code 20427, with a Premier Care in Bathing Consultant, and cannot be combined with other offers, nor can be applied to previous purchases.

☒ **Yes**, please send me my **FREE Information Kit** explaining the safety, comfort and therapeutic benefits of a Premier Care in Bathing Walk-In Tub.

Name _____

Address _____

City _____

State _____ Zip _____

Telephone (_____) _____

Email _____

Send to: Premier Care in Bathing, 2330 South Nova Rd., South Daytona, Florida 32119

CODE 20427



Snapshot

A diabetes educator helps a man see a true picture of his blood glucose levels | By Monica Joyce, MS, RD, LDN, CDE



► The PERSON

J.B., 45, had lived with type 2 diabetes for 12 years. He also had related health problems: coronary artery disease (he had a heart attack and a stent placement a few years after his diabetes diagnosis) and sleep apnea, in which his breathing was interrupted multiple times per night.

► The ISSUE

After several years when J.B. controlled his diabetes with an eating plan, exercise, and metformin, his blood glucose levels started to rise. After the heart attack, he needed several pills and multiple daily insulin injections to manage his blood glucose. With this potent combination of medication, his A1C, a measure of average blood glucose levels over two to three months, eventually improved to the desired 6 to 7 percent range. But a job change, more travel, and weight gain eventually led to a significant increase, to 10.8 percent. He continued taking three kinds of oral diabetes medications, injecting insulin and exenatide (Byetta) as prescribed, tried to eat healthfully, and tested his blood glucose three to four times a week. His A1C improved somewhat but didn't reach the healthy range of less than 7 percent, and he was obese. J.B. found it hard to exercise regularly and knew he was overeating. Extra pounds, uncontrolled blood sugars, and worries about his long-term health weighed him down. He wanted to explore options.

► The EDUCATION PLAN

I hoped to help J.B. see the effect of his food, exercise, and medications on his blood glucose levels. Just one meter reading a day failed to show the effect of a big meal, for example.

I hoped that seven days of wearing a continuous glucose monitor, which shows glucose levels every few minutes, would help J.B. better understand the changes in his blood glucose, especially related to his food choices. Seeing the effects of his choices in real time on the CGM, and analyzing them with me using graphs of the data, could be powerful.

► The RESULTS

J.B. wore a CGM for seven days. It gave him the feedback he hoped for. J.B. bought a personal CGM (this device is often not covered for people with type 2 diabetes by insurance plans, including Medicare). After using his CGM for several months, J.B. achieved an A1C of 6.4 percent, needed substantially less insulin, and lost 15 pounds.

► TAKEAWAYS

Your health care provider may be able to provide a loaner CGM or a professional device. If such a device is not available, talk to your diabetes educator about using your blood glucose meter and strips to test before and after meals and before and after exercise for a few days. This can help you and your provider see the effects of food, exercise, and medication on your blood glucose levels and consider the best actions to take.

Monica Joyce, MS, RD, LDN, CDE, is the program director of the American Diabetes Association-recognized diabetes program at Sobel Medical Associates in Chicago and coauthor of *Too Busy to Diet*. Note: She has served as a paid speaker for Dexcom, which manufactures CGMs.

► **READERS AND EDUCATORS**, we welcome your Live and Learn submissions: E-mail us at replyall@diabetes.org

In the FORECAST

PRODUCTS AND PROMOTIONS

Diabetic Care Services & Pharmacy

Diabetes patients nationwide rely on **Diabetic Care Services & Pharmacy** for all their testing, insulin, and wellness supplies. We help you get more from Medicare and private insurance. We also help you place your orders—over the telephone or online—and we save you money. Get quality diabetes supplies at little or no cost ... and free home delivery.



DiabeticCareServices.com
1-800-633-7167

Diabetic Gel Socks Special Offer

Diabetic Gel Socks Offer Protective Gel Cushion In Heel & Toes! Non-binding top; seamless toe; mild gradient compression; ventilated weave; imported cotton/spandex; one size fits most/cream color; item #8250 \$16.97/pair.



SPECIAL OFFER: When ordering, use Coupon Code (web) or Dept # (phone) 68243 and receive a pair of EZ Grip Nail Clippers FREE & FREE S/H!

Call 1-800-410-2153 or visit www.dreamproducts.com

The Smart Activity Tracker

The Bowflex Boost™ band was designed with one simple goal—to keep you moving! Everyday activities like walking, running, and lifting count toward your progress. Tracking your calorie burn, steps, distance, and sleep is now easier than ever with your preprogrammed daily goals and Bluetooth® syncing to your iPhone.



Visit BowflexBoost.com

MediCOOLER™

Portable Refrigeration

The MediCOOLER™ keeps bottled medicine and syringe pens safely cool in a compact, lightweight, portable mini-refrigeration unit. Holds up to nine bottles of insulin, three syringe pens, or a combination of both.



Enter to win a FREE MediCOOLER!
Just visit www.medicool.com/medicooler
or call 1-800-433-2469 for details

FRIO® Insulin Cooling Wallet for Vials, Pens, and Pumps

Great for everyday life, travel, and emergencies! The FRIO® is a unique medically tested evaporative insulin cooling wallet that **never requires ice packs or refrigeration**. To activate, soak in water for 2-12 minutes (size dependent). It retains its cooling properties for 2-5 days and can be reactivated. Reusable!

Available at www.FRIOCase.com



Domino® Light and C&H® Light

Introducing Domino® Light and C&H® Light—

all-natural pure cane sugar and stevia blends with half the calories of sugar!

Available in a 2 lb. bag or 40 ct. packets box, each blend is ideal for baking and everyday sweetening. Try the Light Way to do Sweet!

Learn more at www.dominosugar.com/light or www.chsugar.com/light



Chasing Away Diabetes

A young boy brings a wise heart to helping others | By Kelly Rawlings



There's a young man you should meet: Chase London Taylor DuPont, 6. When asked why he has type 1 diabetes, Chase says because "that's the way God made me!"

While Chase and his family, of Philadelphia, have adjusted to the finger sticks and an insulin pump, they've also tried to make a difference in the lives of others. They've given new significance to Chase's birthday by throwing "Chase Away Diabetes" celebrations, raising money to fight diabetes.

As is true for any child dealing with this chronic condition, Chase's diagnosis at age 3 meant his entire family was affected by diabetes, too. In the hospital, his mom, Courtney Taylor, couldn't stop crying. "I cried every time they came to check his sugar," Taylor says. "But he was better with accepting it all than I was. He was comforting me!"

Making a Difference

Chase's fourth birthday drew near, and Taylor asked what kind of party he wanted. As Taylor recalls, "Chase said, 'I want to have a danceathon with only Michael Jackson music. For kids who have diabetes.'"

And so the family—including Chase's dad, Jeremiah DuPont, baby sister Carter, and grandmothers, aunts, uncles, cousins, and friends—put on a "Chase Away Diabetes" fund-raiser. They held the

marathon dance celebration at Southwest Leadership Academy Charter School and raised nearly \$2,000, which they donated to the American Diabetes Association.

In 2013, Chase, nearly 5, asked for another danceathon, but bigger and held outside. Oh, and he wanted to raise more money. The danceathon, held as a South Philly block party, raised more than \$3,000. That fall, City Councilman Kenyatta Johnson recognized Chase and his family with a community service award.

Mom Says

As for any family, those first months after the diabetes diagnosis were tough. "I stopped praying. I didn't go to church," Taylor says. "I was angry. Why, of all kids, why, of all people, why did my child have to be the one?"

Then a good friend told Taylor she would figure out her purpose. Perhaps God was trying to get Taylor to do something for someone else. Taylor found her passion, as a mom raising healthy, happy, spiritual kids, and as a fierce advocate for diabetes families. She corrects misconceptions about type 1 diabetes—yes, Chase can have a cupcake as long as he takes insulin. And she demonstrates the realities of taking care of diabetes as a family, from the frustrations of tracking down scarce nutrition information at a restaurant to explaining the expenses of insulin pump supplies. Taylor says she wants Chase to know he's a special, beloved person, yet doesn't want him to feel different or limited by diabetes.

Taylor hopes that kids and parents who face diabetes realize that they are not alone. Instead, they are part of a big, extended family—a family that's chasing away diabetes.

➔ **READ MORE** about Chase and his family at chaseawaydiabetes.com.

Thank You

*to our
Corporate Supporters*



DIABETES IS A DISEASE THAT AFFECTS THE WHOLE FAMILY, ESPECIALLY WHEN A CHILD OR loved one is diagnosed. Whether you're a parent, sibling or other family member, access to information and resources can make all the difference in helping every child and every family adjust to life with diabetes.

Join the American Diabetes Association® in thanking our Banting Circle supporters for making a real difference in the lives of millions of people affected by diabetes. Diabetes continues to exact a terrible toll on our nation. Corporate support for research, improving care and ultimately stopping diabetes is more critical than ever.

BANTING CIRCLE ELITE



BANTING CIRCLE

Abbott/Abbott Diabetes Care
BD Medical – Diabetes Care
Boehringer Ingelheim Pharmaceuticals
GlaxoSmithKline
LifeScan, Inc. and Animas Corporation
Medtronic Diabetes
Merck

The Banting Circle Supporters are recognized by the American Diabetes Association for their level of funding in 2013. The annual support for companies reaching the Banting Circle Elite level is \$1,000,000. Companies whose support totals \$500,000 or more are recognized at the Banting Circle level. To learn more about our Banting Supporters, visit diabetes.org/bantingcircle.

The Chickasaw Nation opens the diabetes camp experience to adults

By Lindsey Wahowiak

HAPPY CAMPERS

It's after dinner at the Chickasaw Nation Department of Health Diabetes Camp, and the 50 campers are in the pool, doing aqua aerobics. It's their third exercise session of the day. After their workout, they'll check their blood glucose levels—for at least the fifth time today—before getting a diabetes-friendly snack. After a day full of informational sessions that cover everything from Diabetes 101 to complications, healthy meals, and fitness, the campers might take in some entertainment, such as a historical acting troupe performance. But, after a full day of fresh air and exercise, they're as likely to turn in for the night, even though it's not even 9 p.m.

Welcome to diabetes camp for adults. In a world where kids with diabetes are able to find the companionship and camaraderie of camp (such as at American Diabetes Association Diabetes Camps®), adults

diagnosed with diabetes are often left to navigate the tricky care of this chronic condition on their own.

Not so within the Chickasaw Nation, which has high rates of diabetes among the people it serves in its clinics and hospitals across Oklahoma. The Chickasaw Nation Department of Health first decided 20 years ago to offer an adult camp for people with type 2 diabetes. The camp is free and open to anyone with diabetes who receives health care through the Chickasaw Nation. It's held every June at The Inn at Treasure Valley Casino in Davis, Okla. Campers are allowed to bring one guest, who will follow the same schedule, finger sticks and all. Some bring spouses or other family members, and some, like Voyn Boggs, 65, of Milburn, Okla., bring friends with diabetes.

"I learned more there than I learned anywhere," Boggs says of the camp. She's attended twice now and brought a friend

● Taking the leap into exercise? It's easy ...



John Elk/Getty Images

who also has type 2 diabetes. Boggs was diagnosed more than 20 years ago, but she says each day at the Chickasaw Nation diabetes camp teaches her things she hadn't learned from her doctor or diabetes educator, or didn't know how to incorporate into her daily life. "All of it was good, and you learn so much, but we have a good time."

When campers arrive for their five days of camp, staff members (physicians, nurses, diabetes educators, and other providers from the Chickasaw Nation) test campers' A1C, blood pressure, and cholesterol, check their feet and teeth, and screen them for any issues. The staff will carefully monitor campers throughout the week—while teaching campers to do checks themselves—and track progress. And that progress is real and measurable, even in the short time the campers are together, says Shondra McCage, MPH, CHES, Diabetes Care Center program manager for the Chickasaw Nation Department of Health. "By the end of the week, 50 percent [of campers] have reduced the amount of medication or insulin they



need," she says. "You see some make some drastic changes, and then you see some that just might make a little bit. But generally everybody, across the board, does make some improvements. Then we encourage them to make follow-up appointments with their primary care providers."

Sessions run the gamut from the basics of counting carbohydrates (something Boggs says she wasn't doing before coming to camp) to how living with diabetes affects feelings and relationships. Kidney disease? Covered. How to make the most of your pharmacy? Covered. The camp also values culture: Because the bulk of campers are citizens of the Chickasaw Nation, their heritage is celebrated.

Building up self-esteem is important to the campers and staff, says McCage. The confidence and support campers gain during the week will stay with them well after camp is over. Many campers stay in touch with each other—Boggs says she keeps up with another camper who lives in her town. Working together can make diabetes management seem like an easier task, McCage says.

"It's a sense of pride to see that the work they did through the week did pay off ... and there's a better understanding with the supporter or family member," McCage says. "These people make friendships and build relationships. We see a lot more self-confidence by the end of the week." ▲

More

TO LEARN MORE about the Chickasaw Nation Diabetes Care Center, call (580) 421-4532.



Campers learn about portion control (above) and share personal stories (top right).

... when you invite family and friends to join you! diabetes.org/stepout



SO Behind the

Beauty and the Beast star Austin Basis talks showbiz, diabetes, and what happens when the two collide

By Tracey Neithercott

In the age of social media, when a TV show is staring cancellation in the eye, the fans take up arms. They flood Twitter with their support for the show. Put their money where their mouths are by buying the products of the program's advertisers. And sometimes, amazingly, it works.

Fans of *Beauty and the Beast*, which has yet to be renewed for a third season, are hoping to do the same. The self-proclaimed "Beasties" have been tweeting advertisers thanks for dollars spent on commercials during the show. Fans are also opening their wallets in a campaign to show producers how much they love the CW drama. And people with diabetes may reap the benefits of the fandom's love: Supporters have raised more than \$15,000 for diabetes research.

The cause isn't arbitrary. Austin Basis, who plays lovable and levelheaded J.T. Forbes on the show, has had type 1 diabetes since he was 9 years old. Back then, Basis, now 37, was an active kid with dreams of someday playing baseball for the New York Mets. The Brooklyn native put the dream on hold, but not because of his diabetes diagnosis. It didn't take long for Basis to realize his talents lay elsewhere—on the stage and in front of the camera.

By the time he hit college, Basis was a theater regular and had decided to pursue an acting career. He earned his master of fine arts at the famed Actors Studio and then, as all struggling actors eventually do, set about working as many odd jobs as he could: busboy, bartender, bouncer, waiter, and substitute teacher.

After bit roles, Basis landed the part of Math Rogers on the CW drama *Life Unexpected*, which ran for two seasons before it ended in 2011. A year later, Basis got the role of *Beauty and the Beast*'s J.T., brainiac, best friend to super-soldier Vincent, and the show's comedic relief.

That's Showbiz

Just as his acting has evolved over the years, so has Basis's understanding of his diabetes. "I think it's a little more like second nature at this point," says Basis. That doesn't mean he has everything figured out. As an actor, Basis's life is in a state of flux, and as a result he constantly adjusts his diabetes management.

Frequent travel means Basis needs to account for varying time zones when considering insulin delivery, mealtimes, and exercise schedules. "Those are new factors that always keep me on my toes," he says. As do other aspects of working on a TV series, such as where the show is being filmed. "[On location], your trailers aren't right by where you're shooting," he says. So instead of stashing all of his diabetes supplies in his nearby trailer while filming, as he does on set, Basis brings a travel case of supplies.





Austin Basis (above) is shown in the inset as J.T. Forbes with Kristin Kreuk, who plays Detective Catherine Chandler.

To minimize the number of items he needs to cart around, he relies on a meter with a disk of test strips. “I only have to change it once every two days,” Basis says. “I can test my blood sugar within 10 seconds. It’s much more conducive to my schedule.” He generally checks his blood glucose when he wakes up, at the studio before shooting begins, before lunch and dinner, and a few other times during the day—an average of about seven blood glucose tests during a long shoot and four or five on shorter days.

Basis is also meticulous about checking his blood glucose before getting behind the wheel. “Even with the control I have over my blood sugar, I still get those highs and lows now and again,” he says. And he prepares for unexpected lows. “You get on the road and you’re fine; then you start to experience signs your blood sugar is low, whether it’s sweating or vision stuff, and you have to figure out—while you’re low—where you can pull over to find snacks,” he adds, so he always stashes carb sources in the car.

Experience has given Basis an understanding of what makes his blood glucose drop or soar, but when it comes to keeping his levels within his target range, he credits technology—namely, the insulin pump he’s been using for the past 15 years.

The device is small enough that it’s easy to hide while filming. “Thankfully, I don’t have shirtless scenes too often,” Basis says. Sometimes all it takes is some shifting around of his infusion set. “Last week I had a scene where I had a shirt with really short sleeves and my pump was showing. I was

using [my arm as an] infusion site. We made the decision to change the infusion site. We broke for 10 minutes so I could move the infusion site to my thigh.”

The pump offers flexibility daily injections don’t, and that comes in handy when Basis is facing down a 12-hour day with scheduled meal breaks six hours apart. And while meal timing doesn’t trip him up as it used to when he was a kid on multiple daily injections, Basis says eating on set poses a different sort of challenge. “Part of being on set is not being tempted too much to eat craft service [catered meals],” he says. “There’s food always there.” And craft service is notorious for supplying unhealthy eats such as doughnuts and pastries.

Most days, Basis’s commitment to his health pushes him to favor meals such as egg whites or a smoothie for breakfast, a sandwich for lunch, and chicken with a salad for dinner. As much as he tries to eat fresh foods, Basis admits he prefers foods with nutrition information on the package because it lets him know exactly how many carbs are included. For everything else, well, “it’s something of an educated guessing game,” he says.

Another major component in Basis’s healthy lifestyle is exercise. The actor keeps active with regular walks and hikes with his wife. There were few of those this winter, when icy temps in Toronto, where he’s filming *Beauty and the Beast*, kept Basis indoors. To stay fit (and keep his blood glucose in range), Basis takes a boxing boot camp once or twice a week, lifts weights, works out on an elliptical trainer, and has begun incorporating yoga into his exercise schedule.

Unless he’s simply going for a walk, Basis disconnects from his pump before exercising to prevent hypoglycemia (experts recommend disconnecting for no longer than one hour). But dips in his blood glucose are harder to predict and prevent when he’s active on set. If a scene calls for his character to be sweaty, for instance, Basis forgoes a quick mist of water for real, exercise-induced sweat. “For those scenes, I’ll have to be careful,” he says. “[Low blood

ONE dilemma on set: to avoid eating too much of the craft service catered meals.

glucose] will happen within a take. I’ll feel that lightheadedness.”

Safety’s a major concern, so Basis always makes sure there are people on set who know about his diabetes and can help him if he goes low. His choice for fast-acting glucose: apple juice. He feels that glucose tablets or orange juice affect his speech when he jumps back into filming.

Actor and Advocate

There are plenty of upsides to fame, none more important to Basis than the influence actors wield. He’s using it to his advantage, bringing awareness to diabetes and the impact it has on people’s lives. While filming in Canada, he stays active in the diabetes community. He’s worked on events with JDRF in Toronto and lobbied in Ottawa for additional research funding for diabetes. And, of course, there’s the Beasties’ fundraiser to extend the show.

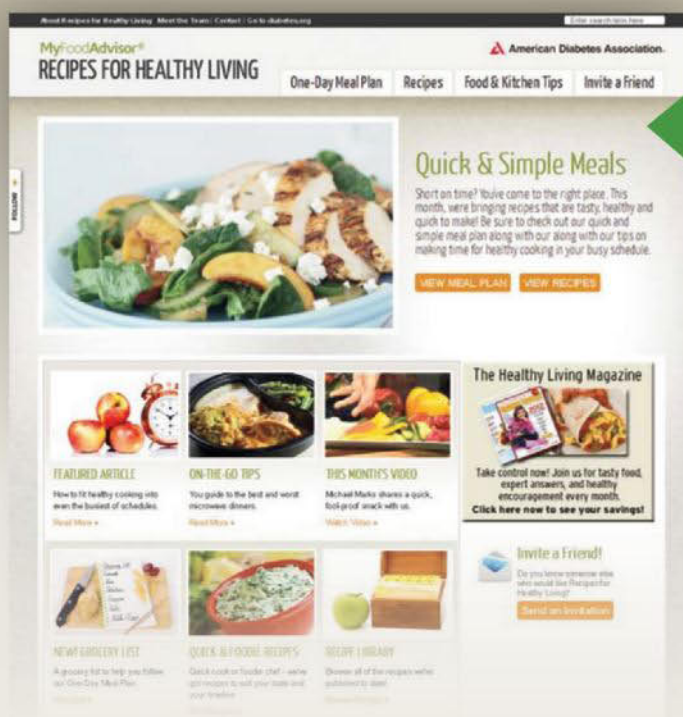
How that will shake out is yet unclear. (At press time, the network had yet to make a decision on whether *Beauty and the Beast* will be renewed for a third season, but the show returns for this season on June 2.) Regardless of the outcome, the campaign will have been a success, raising both money for and awareness of the disease.

That, for Basis, is the ultimate goal. “I made [my diabetes] a point when I got the role of J.T. on *Beauty and the Beast*,” he says. “That is one of the things I wanted to be real about. There’s hope for a normal life and a normal career, and [people] don’t need to look at their diabetes diagnosis as an impediment to realizing their dreams.” ▲



Opening spread portrait: Bobby Quillard; opening spread TV photo: Ben Mark Holberg/
The CW. © 2013 The CW Network, LLC. All rights reserved. This page: Bobby Quillard

Recipes for Healthy Living



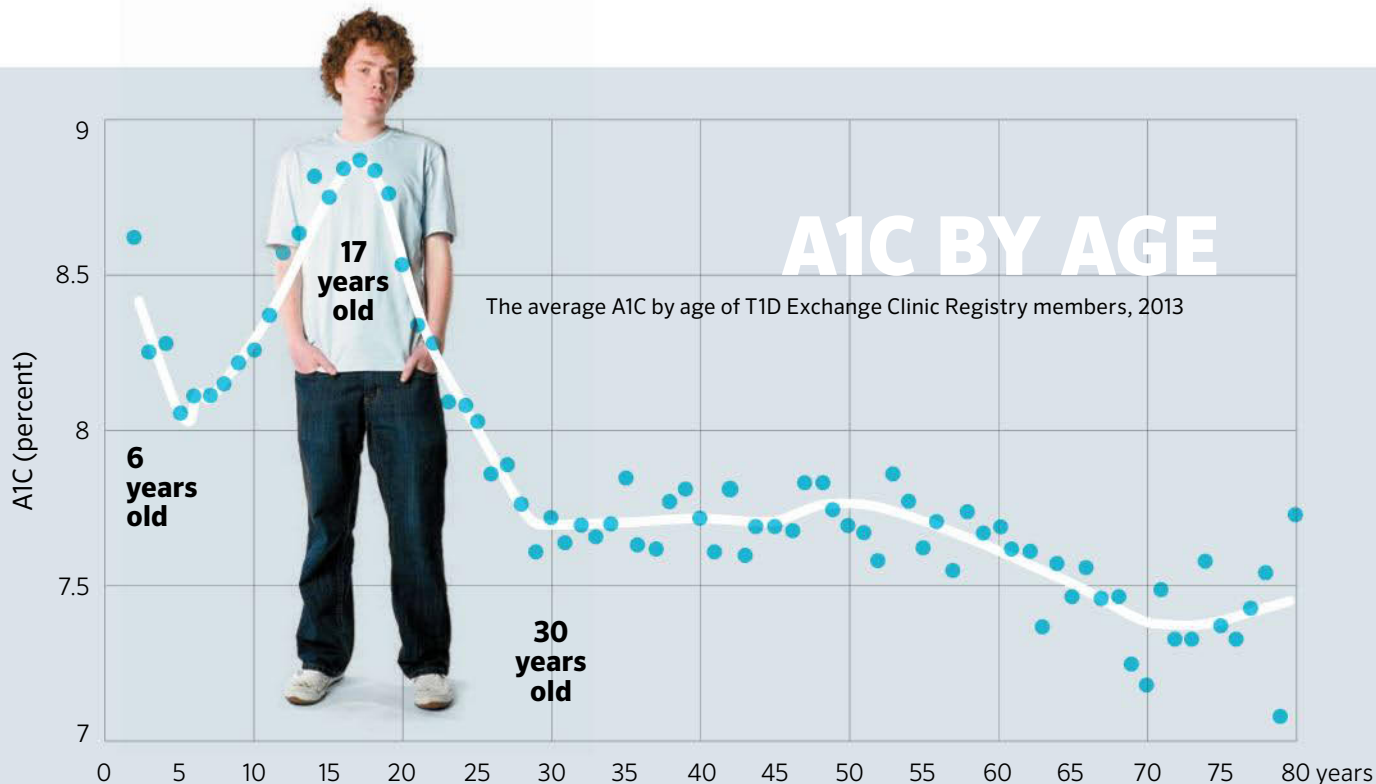
**Sign up today —
it's FREE!**

Each month, you'll get:

- Recipes
 - *Quick*
 - *Budget-Friendly*
 - *Gluten-Free*
- Cooking Tips
- A One-Day Meal Plan

Go to www.diabetes.org/recipes





All for One

A growing hub for type 1 research

EVER HAD AN A1C BLOOD TEST? Then you'll want to take a look at the graph above.

It's from the T1D Exchange, an endeavor to kick-start type 1 diabetes research and development. The exchange connects large numbers of patients and their data with researchers and aims to spark ideas for improving diabetes care.

The graph traces the average A1C by age of people with type 1 diabetes who are part of the T1D Exchange Clinic Registry. Perhaps your A1C (a measure of average blood glucose for the previous two to three months) is higher or lower than the average for your age group. What's significant, however: No age group meets the recommended general target level of below 7 percent. See that peak in A1C levels around age 17? It's a sign that teens with diabetes have the worst blood sugar control and may need more help. Information such as this can help us tackle better ways to keep people healthy. **BY KELLY RAWLINGS**

A New Approach

The nonprofit T1D Exchange launched in 2010, funded by the Helmsley Charitable Trust Type 1 Diabetes Program, a major private funder of type 1 research. The trust saw the need for resources that would allow the development and testing of new therapies in less time and at lower cost.

"In the past few decades, we have had better devices, better insulin," says Dana Ball, executive director and cofounder of the T1D Exchange. "We have definitely improved. But there's nothing to jump up and down about and ring the bell to say, 'This therapy or solution has relieved the burden of diabetes.'"

Reducing that burden means helping people more easily manage blood sugars—"the lows not so low, the highs not so high," Ball says—avoid complications, and get back the time they spend on diabetes care.

The T1D Exchange hub includes:

- ◆ **T1D Exchange Clinic Registry**, a database that houses information from more than 26,000 patients with type 1 diabetes.

- ◆ **T1D Exchange Clinic Network**, which includes researchers at more than 70 clinics.
- ◆ **T1D Exchange Biobank**, a biological “library” of blood samples. Researchers can check out samples for approved research projects.
- ◆ **Glu, myglu.org**, an online patient community with discussions, articles, and the chance to take part in online research.

Power in Numbers

One way to speed the investigation of new therapies is to quickly find the right participants to study. For the TEENS study, a collaboration with pharmaceutical maker Sanofi, 500 participants from the clinic network were enrolled in less than five months—impressively speedy results.

Access to registry data observed repeatedly over time is invaluable. Researchers can pinpoint, for example, life stages during which diabetes care is even more difficult than usual, such as those tricky teen years, and come up with solutions. “If you look at the details, you can see the disparities of care and clinical outcomes,” Ball says. That helps focus efforts.

A Place to Gather

The online community, Glu, places patients and their families at the center of research. “We believe patients hold the clues to new discoveries and their involvement is critical,” Ball says.

The online community, launched at the end of 2012, is a toddler compared with other longtime online diabetes communities, but it has grown to having nearly 9,000 members. Communications manager Christine Frost says Glu invites more members to regularly participate and, in particular, hopes to attract more males and parents or guardians to reflect the spectrum of people affected by type 1 diabetes.

A simple sign-up (you’ll share your e-mail and some privacy-protected information about your diabetes status) allows access to the online community, where you can consent to participate in surveys and other online research.

By sharing stories, members connect with others who understand the challenges of life with type 1. Anna Floreen, Glu

community outreach manager, wrote about wearing an artificial pancreas prototype for a study (she was on the cover of *Diabetes Forecast* in March 2014), and contributor Kate Boylan has shared the challenges of a pregnancy with type 1. Sometimes features are all for fun: The site encouraged members to vote on a basketball-style bracket during March; instead of college teams, it pitted insulin pumps against each other by popularity.

Wondering how your care stacks up? A search tool on the website lets you view registry information on frequency of DKA (diabetic ketoacidosis), age of diagnosis, and more. For example, kids in the registry who use insulin injections are more likely to have a DKA episode than those using insulin pumps (nearly 14 percent of injection users had at least one DKA episode over 12 months, compared with 7 percent of pump users). These data don’t prove cause and effect but do suggest areas for more research and improved care.

For Professionals

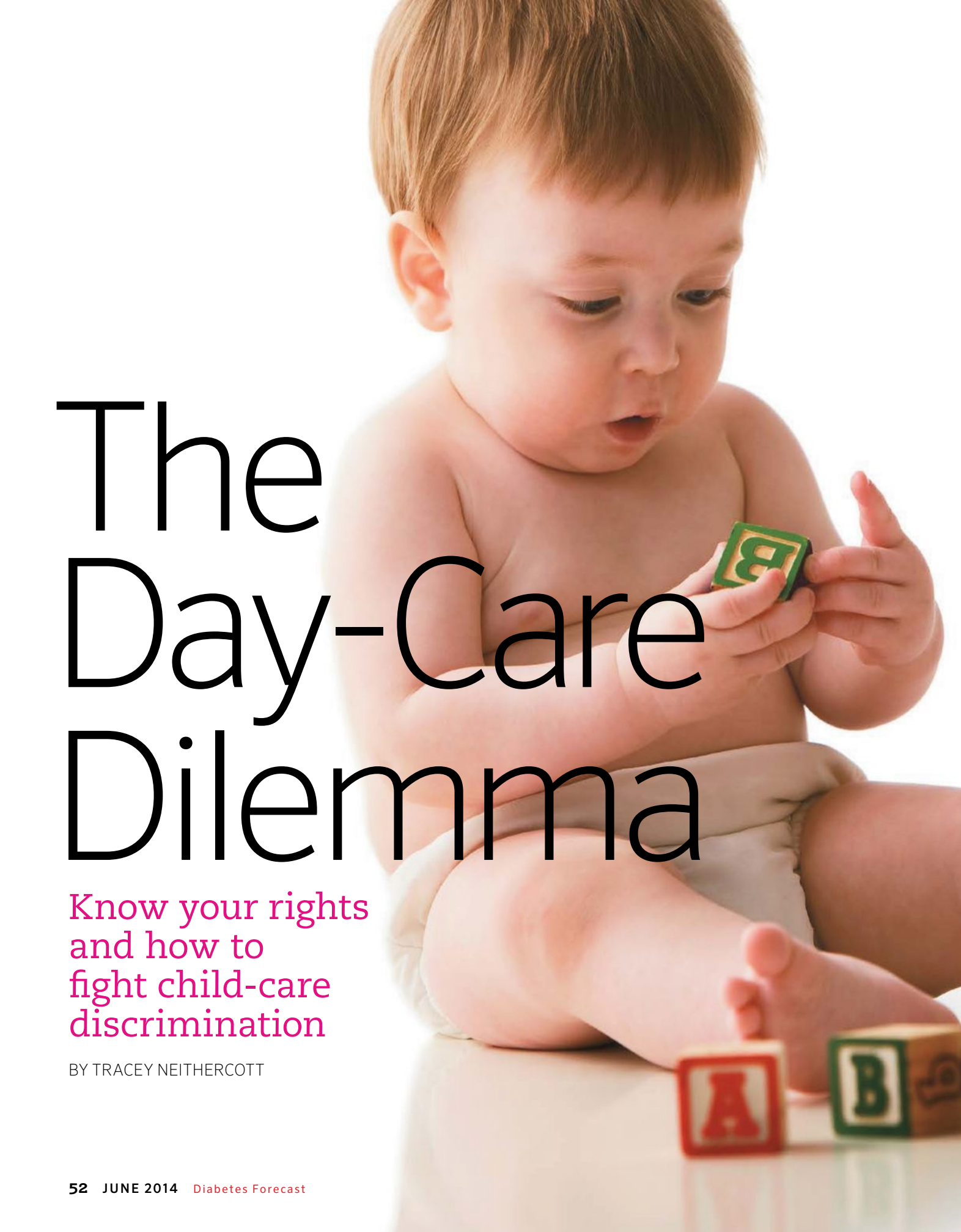
In addition to serving people with diabetes, the exchange spreads knowledge to health care providers by publishing findings, including 45 abstracts and 13 journal articles so far. The research ranges from patient insights to long-range observational and intervention studies at the clinics in the network.

The exchange (since rolled into an umbrella nonprofit called Unitio that plans to extend the hub model to other disease programs) supports itself through memberships, grants, services, and fundraising. The Helmsley Charitable Trust is still the primary funder; other members include for-profit pharmaceutical companies and organizations such as the American Diabetes Association and JDRF.

It takes courage to live with diabetes. It also takes courage to invite stakeholders to share information and collaborate. “It takes a lot of courage, it takes a lot of patience, to take a bold and fresh perspective on understanding type 1 diabetes,” Ball says. And, he adds, there’s power in philanthropy—pointing to the passion from the Helmsley Charitable Trust—and strength in working together. ▲

To see type 1 stats and take part in the community and online research, visit myglu.org and register.



A close-up photograph of a baby with light brown hair, wearing a white diaper, sitting on a white surface. The baby is holding a green alphabet block with the letter 'B' in their hands, looking down at it intently. In the foreground, there are other alphabet blocks, including a red one with 'A' and a green one with 'B'.

The Day-Care Dilemma

Know your rights
and how to
fight child-care
discrimination

BY TRACEY NEITHERCOTT



Child-care issues for kids with diabetes can be complex and confusing, but worry not. *Diabetes Forecast* has grilled experts about your child's rights, how to fight discrimination, and ways to ensure your kid stays safe.

Your Child's Rights

Despite what a day-care facility may tell you, your child cannot be turned away simply because of diabetes. "There's no right to attend day care," says Ed Kraus, professor of law at Illinois Institute of Technology Chicago-Kent College of Law and supervisor of the Center for Diabetes Research and Policy there. "But what there is for kids with disabilities is a right to not be discriminated against." And under the Americans with Disabilities Act, refusing a child's acceptance into a day-care facility or after-school program counts as discrimination. (Religious institutions, however, are not covered under the law unless they receive federal funds. Neither are private nannies or babysitters.)

Acceptance, however, isn't the major issue most parents face. Getting child-care workers to help manage your child's diabetes is a tougher task. While Section 504 of the Rehabilitation Act of 1973 requires publicly funded schools to provide the assistance kids with diabetes need to manage their disease, the provision often doesn't apply to child-care facilities. (The



Head Start program and after-school programs held on school grounds, though, are subject to Section 504.)

Most day cares and aftercare programs are privately run, but they still have legal obligations to provide diabetes care. However, “if your kid needs insulin during the day, [a day care] might not be legally required to hire nurses or train a layperson,” says Kraus. “If a day care shows it’s an undue burden, it’s not discrimination.”

So what’s an undue burden? Well, it’s a legal term up for interpretation, but child-care facilities could use it as a reason not to provide diabetes care. For instance, a day care may say it is too understaffed to inject a kid’s insulin.

Things get tricky when the undue burden is based on state laws that maintain only nurses can provide medical care. Under those laws, a day care would have to hire a nurse to care for your child’s diabetes—which may not be financially feasible.

“[Educating day-care facilities] is especially important where there are state laws or people think there are state laws that say, ‘You can’t do this as a program that doesn’t staff nurses,’ ” says Larisa Cummings, an attorney with the Disability Rights Education and Defense Fund. The good news is that the federal Americans with Disabilities Act trumps state laws. “There really is no state law that can stand in the way of federal law,” says Cummings. “The Department of Justice agrees with us.”

Little Kids, Big Worries

Decisions on whether staff members perform children’s diabetes management tasks vary on a case-by-case basis. Smaller day cares with few employees may say they don’t have enough workers to thoroughly care for a child with diabetes, while larger centers are more likely to have policies on giving medication. How long a child will be at the center, as well as the child’s age, may also play a role in the day care’s decision.

Many kids in day care are too young to do even the simplest of diabetes-care tasks. “We’re dealing with a group of children who are 100 percent dependent on the adults around them,” says pediatric



Day-care centers may be wary about caring for such young children with diabetes, and the fear of harming the child can motivate them to refuse care.



When you step out as a Red Strider, you get cool swag, such as this baseball cap. You also meet other people with diabetes, just like you! diabetes.org/stepout

endocrinologist Larry Deeb, MD, a clinical professor at Florida State University, past president of the American Diabetes Association, and cochair of the Association’s Safe at School® working group. “The child is perhaps incapable of saying how he or she feels. A 7-year-old might come to you and say, ‘I’m low.’ A 3-year-old might get tired.” Caregivers need to recognize the signs of hypoglycemia (lows) and hyperglycemia (highs) and know how to treat accordingly.

Day-care centers may be wary about caring for such young children with diabetes, and the fear of harming the child can motivate them to refuse care. “It’s a big job for a day care to take on,” Deeb says. “It’s a big job for a parent to take on.”

But parents with newly diagnosed infants and children manage, and with the proper training, day-care workers can, too. “There’s nothing that difficult in diabetes [management] that can’t be taught,” says Marilyn Clougherty, RN, MSN, CDE, coordinator of the Children’s Hospital of Pittsburgh’s diabetes program.

Care That Needs Covering

For kids with diabetes, staying safe during the day or even for a few hours after school comes down to diabetes management. As soon as your child is accepted by a center or program, schedule a chat with staff to discuss which diabetes-care practices caregivers will need to follow.

At least one person at the day care or after-school program should be prepared to check your child’s blood glucose. The caregiver must be able to recognize and treat the symptoms of high and low blood glucose. Most often that includes giving kids fast-acting glucose to treat a low and keeping watch on their glucose levels. But any place you leave your child should be willing to provide emergency care, such as giving glucagon.

It’s important for parents to iron out the details of emergency care early on. Day-care providers may resist giving glucagon, so parents may have to fight a little harder to educate and negotiate emergency care for their child. If you’re adamant about your

child receiving a glucagon injection for a severe low blood sugar causing seizure or loss of consciousness and the program refuses, it may be time to seek an alternative child-care solution.

While some children may not need staff to administer insulin—such as those who will be in day care for only a couple of hours or kids in an after-school program—most parents look for child-care programs that agree to count carbs and inject insulin. Even children at a center for just an hour or two may need insulin if snacks or meals are served.

How to Fight

If a day care or after-school program refuses to accept your child, you have two options: Search for another center or fight back. Parents who plan ahead will have the best outcomes. “Go in knowing what your rights are, and don’t take no for an answer,” says Katie Hathaway, managing director for legal advocacy at the American Diabetes Association. Because refusing to accept a child based on diabetes alone is considered discrimination under the Americans with Disabilities Act, you should have a strong position in fighting for your child’s place at day care.

If a center still refuses your child, there are legal actions you can take. And you don’t have to go at it alone. “It’s important for parents who are running into these obstacles to reach out and get assistance as soon as possible,” says Cummings. Your best bet is to contact the American Diabetes Association, which can answer questions and put you in touch with an expert in your area for guidance.

You may be advised to file a complaint with the Department of Justice. “It can take a while, but there are so many good outcomes,” Cummings says.

Fighting back is a little trickier when it comes to child-care programs that accept kids with diabetes but won’t tend to children’s basic diabetes-care needs. If that’s the case, your first action should be talking with the staff or administration to see if adjustments can be made. “They

BATTLING THE MILITARY

Katina Mein fights child-care discrimination on military bases

When Katina Mein’s son, Steven, was diagnosed with diabetes last year, he’d been attending preschool since he was 2 years old. The family moved to the military base where Mein’s husband worked, planning to send Steven to the on-base preschool. But that’s not what happened.

In Hawaii, where the Meins lived at the time, preschool is considered child care and therefore doesn’t fall under the state’s Department of Education umbrella. So unlike state-funded elementary schools and beyond, Hawaiian preschools aren’t necessarily required to care for the needs of students with diabetes. When Mein broached the topic with administrators at her son’s preschool, she was shocked at their reaction. “We left that meeting very upset, heartbroken,” she says. “Every brainstorming thing we put out there was met with rolling eyes, met with sighs.”

The on-base preschool wouldn’t budge. Administrators refused care even though the preschool staff was large and included two nurses shared with two other child-care centers. Financing staff education wasn’t an obstacle either because the Meins’ diabetes educator offered to teach staff for free.

Frustrated with the center’s refusal of care, Mein submitted a complaint that was discussed by an Army subcommittee, and she attended with an American Diabetes Association representative in tow. The committee’s finding: Insulin is too dangerous a drug for preschool employees to administer. That, plus the training involved in teaching staff diabetes management, wouldn’t be realistic, it decided. “If we could learn to take care of our child in two days, why couldn’t they?” Mein asks.

For a year, Mein has been fighting the system and pushing for her son, now 4, to return to preschool. Eventually, her husband reconsidered his military career. “This was sort of an eye-opener for us,” Mein says. “The Army talks about taking care of their families, and we saw that isn’t the case.” Mein’s husband is in the process of leaving the military, and in the meantime she has recently moved with her son and baby daughter to Texas, where the family hopes to have better luck with child care and education.

Though Steven was learning with 4- and 5-year-olds by age 3, he hasn’t been to school in a year. To make sure her son’s education doesn’t get tied up in military red tape, Mein has hired a tutor.

As for her complaint, Mein asked to be updated as it progresses through various military channels but hasn’t heard anything yet. That doesn’t mean she’s giving up. “I’m still pursuing it,” she says. “I never want another parent to have to sit through that assessment meeting and feel so belittled and so helpless. I never want another child to have to sit through that and hear what he or she can’t do.”

need to see if they can modify their practices,” says Hathaway.

If that fails, you can file a complaint with the Department of Justice (for details, go to justice.gov/crt/complaint), and there’s a good chance you’ll get a ruling in your favor. “Based on what we’ve seen in other cases, it’s likely the Department of Justice will require most child-care centers to provide needed diabetes care,” says Hathaway.

Depending on your situation, an American Diabetes Association representative might recommend you hire a lawyer. Is getting an attorney involved worth it? If you’re fighting a larger company, the answer may be yes. “When you have those bigger entities, you can use the law,” says Kraus. “You can argue, ‘Come on, all you’re asked to do is check glucose.’”

Of course, sometimes all it takes for a day care to comply is a sit-down meeting during which you educate staffers about diabetes. “There’s still a lot of misunderstanding,” says Sarah Blenner, director of the Chicago-Kent law school’s Center for Diabetes Research and Policy. “There’s still a real need to understand what a child may need.”

By explaining exactly what goes into caring for a child with diabetes, you can put child-care administrators’ fears to rest—and reassure them that diabetes management isn’t such a daunting task.



In need of a good day care? Ask other parents of children with diabetes for referrals.

“If you’re willing to approach it in the right way, there are a lot of day cares across the country that will care for young kids with diabetes,” Blenner says.

The Parents’ Role

Once a day care or aftercare program agrees to be responsible for your child’s diabetes, be prepared to help find someone to educate the staff or do it yourself. “It’s not a ‘drop the kid off and see you in three hours’ situation,” says Blenner. “Parents have to help the day care navigate through.” Focus on four major areas:

TREATMENT PLAN: Start with your child’s endocrinologist. He or she should be able to give you a treatment plan the day care can follow. A Diabetes Medical Management Plan, which details all elements of diabetes care a child needs, can be useful for child-care staff. (Find an example at diabetes.org/childcare.)

Staff unfamiliar with diabetes may need diabetes education, and it’s the parent’s job to help provide it. “Pediatric centers may be able to provide education for day-care or aftercare places,” says Clougherty. Sometimes diabetes educators will teach a child-care facility for free, but often there’s a cost involved. “A lot of times, parents pay that cost. Sometimes the aftercare places do.”

Another alternative is to bring the caregiver responsible for your child’s diabetes management to your diabetes center or practitioner’s office for a free diabetes education class. Or parents can educate the staff, which is what happens in many cases.

SUPPLIES: Providing the day care with the necessary diabetes supplies is an important step in ensuring your child’s safety. “A day care can only provide care with the tools they’re given, and the tools are there to keep your child safe,” Clougherty says. So be sure to pack a meter and test strips, extra insulin and syringes, pump tubing and adhesive, urine ketone test strips, fast-acting glucose, glucagon kit, and any snacks or meals your child should eat. Make it easy for day-care workers to dose insulin by writing the number of



carbohydrate grams in a snack or meal on the outside of the plastic baggie.

FOOD: When it comes to eating, be specific about your desires. Should your child be allowed to partake in special snacks, such as cupcakes for a birthday? Or would you rather he or she only eats the food you provide? What happens if the regular mealtime is pushed back? Instructions for staff should take all scenarios into consideration.

OUTINGS: Details are also crucial when it comes to other aspects of child care. Many programs take children on field trips; they might bar a child with diabetes from going unless a parent or guardian tags along. Discuss the issue at the outset so you're not blindsided the day before (or the day of) a field trip.

Once the details have been determined and your child is successfully cared for, stay alert. Make sure the staff is following your child's treatment plan by reviewing the history on your child's meter, pump, continuous glucose monitor, or logbook you ask the center to keep. Don't be afraid to raise questions or concerns as they arise. And, above all, remain available throughout the day.

Managing Expectations

The idea of child care is to provide safe and reliable care for a child when a parent can't be there. But parents of children with diabetes need to be available at all times in case of emergency. "When parents have a child with diabetes, they know they're at a different level of being available," says Clougherty. "There's always the understanding that we might need you to come to get your child."

It's also a smart idea to allow staff members to call you with questions about your child's care. "This is a time when parents have to be involved, and it may be that you have to be involved over your lunch hour," says Deeb. For hardworking parents, that may seem unreasonable, but it's necessary to keep your child safe.

"It's a tough situation," says Kraus. "There's no obvious solution. In a lot of cases, it requires parents make a lot of hard

choices and sacrifices." One option Clougherty says some parents find helpful is to ask the day care or aftercare program to contact your child's diabetes center or endocrinologist's office if you can't be reached. It's a safeguard many doctors and diabetes educators will agree to.

Points to Ponder

Most parents weigh the pros and cons of sending their children to day care, but parents of kids with diabetes have a few other issues to consider. For starters, it's rare for a day care or after-school program to staff nurses, so you'll need to work with the day care to make sure there's at least one staff member available on-site who is trained to meet your child's diabetes needs.

What's more, there's often a high turnover rate at child-care centers, making it hard for management to assign one person the job of learning diabetes care. And depending on employees' schedules, the staff member you leave your child with may not be there when you pick up. "You have to remember that day care is a different industry," says Blenner.

Parents forced to battle a day care to tend to their child's needs may want to consider whether relying on that center is a good idea, says Deeb. "I'd want my 3-year-old wanted by a place," he says. "I wouldn't want my 3-year-old forced on somebody." That is, if a center grudgingly agrees to care for your child's diabetes, you'll have to determine whether reluctant care will be up to the standards you expect.

That said, day cares and after-school programs across the country successfully manage diabetes care for children of all ages. "We have wonderful day cares that have taken it on," says Clougherty. "They call when they need help. They provide a wonderful, safe environment. For the most part, people who work in day cares want to help children." ▲



Ask the
day care to
contact your
child's health
care provider
if you can't
be reached.

More

YOU DON'T HAVE TO FIGHT DISCRIMINATION ON YOUR OWN. Ask for the American Diabetes Association's help by calling 1-800-DIABETES (1-800-342-2383).



MAGNETIC ATTRACTION

ADA grant recipient Wolfgang Peti probes the mechanics of diabetes with powerful magnets

By Erika Gebel Berg, PhD

AT MINUS 459.67 degrees Fahrenheit—absolute zero—all motion, even the swirling of atoms, stops cold. Just a few degrees above that is the sweet spot for a machine that Wolfgang Peti, PhD, hopes will help unravel the biological basis of diabetes. He's an expert in a research technique called nuclear magnetic resonance (NMR) spectroscopy, which depends on a powerful magnet that works only at frigid extremes. Early this year, Peti, an associate professor of medical science and chemistry at Brown University, received a cool \$1.6 million Pathway to Stop Diabetes award from the American Diabetes Association (ADA) to bring this advanced scientific tool to the fight against diabetes.

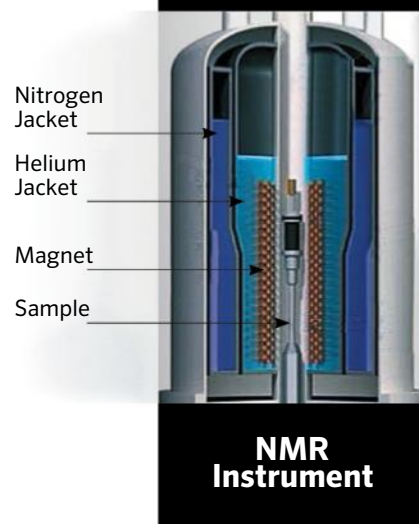
Big Magnets

Peti, who was born in Austria, has wanted to be a scientist ever since he was a boy. "I liked math, chemistry, and physics," he says. "That's the most fun I had." NMR requires a solid understanding of all those topics and lured Peti to the field. For most of his career, Peti has applied NMR to the study of enzymes, the hardworking proteins that speed chemical reactions in the body. The body contains around 20,000 different proteins, some of which orchestrate the complex maneuvers that maintain blood glucose levels. For example, when blood glucose increases after eating, enzymes in the pancreas recognize the rise and tell pancreatic cells to release insulin. The insulin travels throughout the body, interacting with specific enzymes here and there, and acting as a signal for cells to absorb and store the excess blood glucose.

Studying diabetes-related enzymes with NMR is possible because the core of each atom behaves like a tiny magnet. Enzymes are microscopic collections of interconnected atoms, mostly carbon, nitrogen, oxygen, and hydrogen. The magnetic properties of each atom depend on its surroundings. By exerting a strong magnetic field on an enzyme, NMR can tease out an atom's magnetic properties and thus its environment, allowing researchers to reconstruct what the enzyme looks like and how it works. Knowing an enzyme's structure and function can help scientists develop new medications that target a particular enzyme, either blocking it from doing harm or helping it do some good in the body. Peti has solved the structure of more than 25 proteins with NMR so far, but he's just getting started.

Brrr: Why Is the Magnet So Cold?

The magnet inside the NMR machine is actually just a coil of wire. The electrical current running through the wire generates a magnetic field. To produce a very strong magnetic field, researchers need to eliminate electrical resistance inside the wire. That's accomplished by putting the wire inside jackets of liquid helium and nitrogen at extremely low temperatures.



Nuclear magnetic resonance (NMR) uses the same technology as the more familiar magnetic resonance imaging (MRI). Instead of putting people inside a magnet, NMR can scan biological molecules such as enzymes to reveal their inner workings.



Peti's Projects

Wolfgang Peti, PhD, will use the funds from the ADA Pathway award to bring his NMR prowess to diabetes science. “My grandmother did have diabetes, but quite frankly we all know people that have diabetes,” says Peti. His research team plans to do “whatever we need to get an answer,” enlisting additional scientific methods as necessary, such as X-ray crystallography. But NMR is where Peti feels most at home, and the method will offer a unique perspective on three emerging areas of diabetes research.



Protein Robbery

Communication between enzymes helps keep many biological processes running smoothly. Some interact with other enzymes by stripping them of phosphate chemicals, a biological equivalent of purse snatching. Peti studies an enzyme that removes phosphates from around 100 other enzymes. One helps turn glycogen, a glucose storage molecule, into glucose. If you could prevent activating this enzyme, then “you would have less glucose in your blood,” says Peti. The challenge is to do this without interfering with the 99 other enzymes, avoiding unwanted side effects. Peti and his team are using NMR to understand exactly how the phosphate-removal enzyme recognizes the glucose-releasing enzyme. Then they could design a drug to specifically block that interaction, lowering blood glucose while leaving all the other enzymes alone.



Lengthening Lives

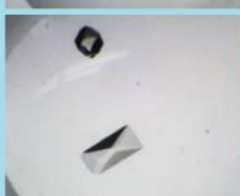
A second avenue of diabetes research Peti is pursuing with the Pathway grant involves the insulin receptor, a protein that recognizes insulin and tells a cell to absorb glucose from the blood. Certain genetic mutations to the insulin receptor are unusually common in people who have very long life spans (around 100 years or so). In fruit flies, these same mutations can also prolong life. Studying the mutations is aided by NMR. Peti hopes to explain how these mutations increase life span.

The Cost of Doing Science

Research is an expensive endeavor. Here are some numbers from Wolfgang Peti's laboratory. These represent only some of his expenses.

\$7 **per hour:** Rate to use the NMR machine, which comes to \$1,200 per week. NMR experiments can take hours or days, with the machine in almost constant use.

\$500 **to \$1,500:** Typical cost of producing one NMR protein sample.



Crystals At Work

Scientists blast these crystals made of protein with X-rays to help them map out the proteins' structure.



Wiggle, Wiggle, Wiggle

In another research project, Peti studies how a recently discovered inhibitor—a chemical that binds to and turns off certain enzymes—may help insulin work better in the body. Many medications are inhibitors that fight disease by blocking harmful enzymes. Peti's inhibitor blocks an enzyme that shuts down the insulin receptor. Without an active insulin receptor, insulin's voice is silenced—a common factor in type 2 diabetes. "No one had any idea how [the inhibitor] works," he says, because it binds to a flexible region of the harmful enzyme. Most research techniques are blind to flexible protein parts, but NMR can detect protein jiggles. Peti's team is using NMR to map out the interaction between the inhibitor and the flexible insulin-signaling enzyme. Once they understand how the inhibitor hangs on to the floppy enzyme and blocks it, Peti hopes they'll be able to develop new diabetes medications that keep the insulin receptor, and insulin's voice, at full volume.

\$2.9

million: List price for the larger of the two NMRs owned by Brown University.

The Hard Part

Asked what the most challenging aspect of his research is, Peti doesn't hesitate: It's making the enzyme sample. Enzymes for NMR experiments are built in the laboratory. Peti says it can take his lab over four years to figure out how to make a new enzyme.

They start with genes, which are nature's instruction manual. Genes tell an organism how to produce proteins. To make an enzyme sample in the lab, scientists insert a gene for the particular enzyme into a willing organism host—usually bacteria, but sometimes yeast, insect, or mammalian cells. To produce one type of enzyme, the scientists need to optimize the host, temperature, incubation time (which can be weeks long), pH, purification strategy, and dozens of other variables. Constructing another enzyme may involve a completely different process. This is part of what makes Peti's lab special—it is the only lab in the world that has figured out how to produce certain enzymes.

In addition to the normal enzyme-growing pains, Peti must also clear some NMR-related hurdles. To make an NMR sample, scientists sometimes have to "label" it with costly atoms that have a desirable magnetic profile. For example, to look at the nitrogen atoms in an enzyme with NMR, they have to use a rare extra-heavy version of nitrogen. Some samples need multiple labels, while others need to be grown in D₂O, a heavy version of water. This can make an NMR sample very expensive (see "The Cost of Doing \$cience," opposite).

Without the Pathway grant, Peti would not have been able to afford to pay such close attention to diabetes. "It's very hard to change your direction," he says, but the ADA funding gave him the opportunity to do diabetes research. Peti remembers getting the phone call that he'd won the grant just before Christmas. "I was very happy," he says, as obtaining funding for basic science is often difficult at best. "It made my Christmas very relaxed, and I was excited to get the research started." ▲

Powering Big Ideas

The American Diabetes Association launched its Pathway to Stop Diabetes program in 2013, with the goal of bringing new scientific talent to diabetes research. The program targets young researchers with exceptional promise as well as established researchers who are newcomers to the diabetes field. The ADA awarded five grants totaling \$8.1 million last year and is now accepting applications for 2014. For more information, go to diabetes.org/pathway.



Science backs it up: Exercising can elevate your mood! Enjoy the body and mind benefits of being a Red Strider! diabetes.org/stepout

YOUR

Food

Outdoor Dining | Eating Well

TAKE

Relaxed dining outdoors makes conversations sparkle and cares drift away. Food Editor Robyn Webb, MS, LN, shares menus for three delightful summer get-togethers. Linger over the flavor of fresh ingredients—they taste even better in the open air.

IT

RECIPES BY *Robyn Webb, MS, LN*
PHOTOGRAPHS BY *Kyle Dreier*
STYLING BY *Whitney Kemp*



Tomato and
Peach Salad

OUTSIDE

PATIO PARTY

Tomato and Peach Salad
Al Fresco Provençal Chicken

Roasted Asparagus
With Prosciutto

Strawberries With
Balsamic Glaze,
Black Pepper,
and Tarragon

Tomato and Peach Salad

MAKES: 8 servings

SERVING SIZE: about 1 cup

PREPARATION TIME: 15 minutes

- 3 medium peaches, pitted and cut into thick wedges
- 3 medium red tomatoes, cut into large chunks
- ½ pint cherry tomatoes, halved
- ½ medium red onion, thinly sliced

Dressing

- 1 Tbsp. sherry vinegar
 - 1 Tbsp. fresh lemon juice
 - 1 tsp. honey
 - 2 Tbsp. olive oil
 - ¼ tsp. sea salt
 - ¼ tsp. freshly ground black pepper
- ¼ cup fresh mint leaves, chopped

1. In a large bowl, combine the peaches, tomatoes, cherry tomatoes, and red onion, and gently toss.

2. In a small bowl or measuring cup, whisk together the vinegar, lemon juice, and honey. Slowly add the oil in a thin stream, whisking to emulsify. Add the salt and black pepper.

3. Add the dressing to the peaches and tomatoes, and gently toss. Fold in the mint leaves. To serve, turn out the salad onto a large platter.

Per Serving: Calories 75, Fat 3.5 g (Sat. Fat 0.5 g), Carbohydrate 10 g (Fiber 2 g, Sugars 8 g), Cholesterol 0 mg, Sodium 75 mg, Potassium 305 mg, Protein 1 g, Phosphorus 35 mg

Choices: Fruit 0.5, Nonstarchy Vegetable 1, Fat 0.5

"Exchanges" are now "choices." To learn more, turn to page 74.

Food Outdoor Dining
PATIO PARTY

Roasted
Asparagus
With
Prosciutto

Al Fresco
Provençal
Chicken

Al Fresco Provençal Chicken

MAKES: 8 servings

SERVING SIZE: 3 oz.

PREPARATION TIME: 10 minutes

COOKING TIME: 20 minutes

Parchment paper

- 1½ lbs. boneless, skinless chicken thighs
- ½ tsp. kosher salt
- ½ tsp. freshly ground black pepper
- 1½ Tbsp. olive oil
- ⅓ cup dry white wine
- 1 small onion, diced
- 2 garlic cloves, minced
- 1 cup reduced-sodium, low-fat chicken broth
- 1 tsp. Herbes de Provence*
- 2 tsp. nonhydrogenated buttery spread
- 2 tsp. small capers
- 1 tsp. fresh lemon juice
- Rosemary branches

1. Preheat the oven to 350 degrees. Line a baking sheet with parchment paper. Sprinkle both sides of the chicken thighs with salt and pepper. In a large skillet, heat the oil over medium-high heat. Add the chicken and sear on both sides for 4 to 5 minutes per side, until browned. Remove the chicken with a slotted spatula. Add the chicken to the prepared baking sheet. Cover loosely with another sheet of parchment paper or foil. Roast the chicken for about 10 minutes.

2. Meanwhile, add the white wine to the pan and scrape up any browned bits. Cook the wine until it's almost evaporated. Add the onions and garlic, and sauté for 4 minutes. Add the broth and the Herbes de Provence. Cook the broth for about

5 minutes, until it is reduced by half. Remove the sauce from the heat and whisk in the buttery spread, capers, and lemon juice. Add the chicken to a serving platter, top with the sauce, and garnish with rosemary branches.

Per Serving:

Calories 140, **Fat** 8 g (Sat. Fat 1.9 g), **Carbohydrate** 2 g (Fiber 0 g, Sugars 1 g), **Cholesterol** 75 mg, **Sodium** 260 mg, **Potassium** 205 mg, **Protein** 14 g, **Phosphorus** 135 mg
Choices: Lean Protein 2, Fat 1

Roasted Asparagus With Prosciutto

MAKES: 8 servings

SERVING SIZE: about 5 spears

PREPARATION TIME: 5 minutes

COOKING TIME: 12 minutes

Parchment paper

- 1½ lbs. fresh asparagus spears
- 1 Tbsp. plus 2 tsp. olive oil, divided
- ¼ tsp. salt
- ¼ tsp. freshly ground black pepper
- 2 oz. prosciutto (about 4 thin slices)
- Lemon wedges

1. Preheat the oven to 400 degrees. Line a baking sheet with parchment paper. Break off the tough ends of the asparagus and discard. Arrange the asparagus in one layer on the baking sheet. Drizzle with 1 Tbsp. of the olive oil and sprinkle with salt and pepper. Roast in the oven for 10 to 12 minutes, or until lightly browned but still crisp.

2. Meanwhile, in a large skillet, heat the remaining olive oil over medium-high heat. Add the prosciutto slices to the skillet. Cook the slices for 2 minutes per side, until crispy. Remove the prosciutto from the skillet and coarsely chop.

3. Add the asparagus to a flat platter. Top the asparagus with the prosciutto and garnish with lemon wedges.



Herbes de Provence is a blend of dried basil, fennel seed, marjoram, rosemary, sage, summer savory, and thyme. It is available in many supermarkets in the spice section. If unavailable, use one or two of these herbs to equal 1 tsp.



Strawberries With Balsamic Glaze, Black Pepper, and Tarragon

MAKES: 8 servings

SERVING SIZE: ½ cup

PREPARATION TIME: 10 minutes

- 16 oz. strawberries, stemmed and halved
- 1½ Tbsp. balsamic glaze*
- 4–5 grinds medium-coarse black pepper
- Tarragon sprigs

In a large serving bowl, combine the strawberries and balsamic glaze. Grind the black pepper on top and gently mix. Garnish with sprigs of tarragon.

Per Serving: Calories 20, **Fat** 0 g, **Carbohydrate** 5 g (Fiber 1 g, Sugars 3 g), **Cholesterol** 0 mg, **Sodium** 0 mg, **Potassium** 90 mg, **Protein** 0 g, **Phosphorus** 15 mg
Choices: Fruit 0.5



Balsamic glaze (sometimes called balsamic syrup) can be found where vinegars are sold. To make your own, heat 3 Tbsp. of balsamic vinegar in a saucepan. Bring to lightly boiling and cook, stirring occasionally, until the vinegar is thickened and reduced to half its volume.

Per Serving:

Calories 50, **Fat** 3.5 g (Sat. Fat 0.7 g), **Carbohydrate** 2 g (Fiber 1 g, Sugars 1 g), **Cholesterol** 5 mg, **Sodium** 205 mg, **Potassium** 125 mg, **Protein** 3 g, **Phosphorus** 45 mg
Choices: Fat 1

**Cilantro
Shrimp
Kebabs**

PICNIC OUTING

Cilantro Shrimp Kebabs
Roasted Potato Salad
Cool Cucumber and
Carrot Salad
Picnic Peanut Butter Cookies



Cilantro Shrimp Kebabs

MAKES: 6 servings

SERVING SIZE: 6 shrimp

PREPARATION TIME: 10 minutes

MARINATING TIME: 30 minutes

COOKING TIME: 4 minutes

- 12 (7-inch) wood skewers**
- 36 large peeled and deveined shrimp (about 1¼ lbs.)**
- 3 garlic cloves, minced**
- 3 Tbsp. fresh lemon juice**
- 2 Tbsp. minced fresh cilantro**
- ¼ cup olive oil**
- ¼ tsp. salt**
- ¼ tsp. freshly ground black pepper**

- 1.** Add the wooden skewers to a shallow pan. Pour hot water over the skewers and let them soak for 1 hour. Drain.
- 2.** Add the shrimp to a large bowl. Add the remaining ingredients and mix gently. Cover and let marinate for 30 minutes.
- 3.** Preheat the oven broiler to high. Line a broiler pan with foil.
- 4.** Remove the shrimp from the marinade. Add the excess marinade to a small saucepan and bring to boiling. Set aside.
- 5.** Using 2 skewers per kebab, thread 6 shrimp onto the skewers so they lie flat. Broil the shrimp for 2 minutes, turn the skewers, and broil for 2 minutes more. Serve warm or chilled, with the marinade on the side.

Per Serving: Calories 165, Fat 9 g (Sat. Fat 1.3 g), Carbohydrate 1 g (Fiber 0 g, Sugars 0 g), Cholesterol 160 mg, Sodium 185 mg, Potassium 230 mg, Protein 20 g, Phosphorus 200 mg

Choices: Lean Protein 3, Fat 1

Traveling Feast

Pack the shrimp, potato salad, and cucumber-carrot salad separately in tightly sealed portable containers. For fit, you may want to remove the shrimp from the skewers. Place the containers in a cooler with frozen gel packs. Keep the cooler lid closed as much as possible during the picnic. Do not let the cooler sit for more than two hours outside; if it's over 90 degrees, for no more than one hour.

Food Outdoor Dining
PICNIC OUTING

Roasted
Potato Salad

Cool
Cucumber
and
Carrot Salad





Roasted Potato Salad

MAKES: 6 servings

SERVING SIZE: ½ cup

PREPARATION TIME: 20 minutes

COOKING TIME: 35 minutes

- Parchment paper
- 2½ lbs. small new potatoes, washed and cut into quarters
- 1 medium sweet onion (such as Vidalia), peeled, halved, and cut into ½-inch slices
- 1 Tbsp. olive oil
- 1 Tbsp. Dijon mustard
- ½ tsp. sea salt
- ¼ tsp. freshly ground black pepper

Dressing

- 2 Tbsp. balsamic vinegar
- 2 Tbsp. nonfat mayonnaise
- 1 tsp. honey

- ¼ cup fresh minced parsley

1. Preheat the oven to 400 degrees. Line a baking sheet with parchment paper. In a large bowl, combine the potatoes, onions, olive oil, mustard, salt, and pepper. Arrange the potatoes and onions on the baking sheet in a single layer. Roast for 30 to 35 minutes, or until tender and cooked through. Add the potatoes and onions to a large bowl.

2. In a small bowl, whisk together the vinegar, mayonnaise, and honey. While the potatoes are still warm, add the dressing and mix well. Fold in the parsley and mix well. Cover and refrigerate until serving time.

Per Serving: Calories 185,

Fat 3 g (Sat. Fat 0.4 g),

Carbohydrate 36 g (Fiber 3 g, Sugars 6 g), Cholesterol 0 mg, Sodium 305 mg, Potassium 910 mg, Protein 4 g, Phosphorus 125 mg

Choices: Starch 2, Carbohydrate 0.5

Cool Cucumber and Carrot Salad

MAKES: 6 servings

SERVING SIZE: 1 cup

PREPARATION TIME: 25 minutes

- 2 large cucumbers
- 3 large carrots, peeled and cut diagonally into ⅛-inch-thick slices
- 2 Tbsp. minced chives

Dressing

- ¼ cup rice vinegar
- 1 Tbsp. lower-sodium soy sauce
- 2 tsp. sesame oil
- 1 tsp. sugar
- ¼ tsp. cayenne powder
- ¼ tsp. salt
- ¼ tsp. freshly ground black pepper

1. Peel the cucumbers lengthwise, leaving some skin in place to create a striped pattern. Cut the cucumbers in half lengthwise and, if desired, scrape out the seeds with a spoon. Thinly slice the cucumbers.

2. Add the cucumbers, carrots, and chives to a bowl.

3. Whisk together the dressing ingredients. Pour the dressing over the vegetables. Toss well. Cover and refrigerate until serving time. Serve chilled.

Per Serving: Calories

45, **Fat** 1.5 g (Sat. Fat 0.2 g),

Carbohydrate 6 g (Fiber 2 g, Sugars 4 g), Cholesterol 0 mg, Sodium 215 mg, Potassium 230 mg, Protein 1 g, Phosphorus 35 mg

Choices: Nonstarchy Vegetable 1, Fat 0.5

Picnic Peanut Butter Cookies

MAKES: 32 servings

SERVING SIZE: 1 cookie

PREPARATION TIME: 20 minutes

COOKING TIME: 10 minutes

- Parchment paper
- ⅔ cup brown sugar
- ¼ cup sugar-stevia blend
- 3 Tbsp. butter
- 2½ Tbsp. light butter
- ⅓ cup crunchy unsalted peanut butter
- 2 tsp. pure vanilla
- 1 egg
- 3 Tbsp. water
- 1¼ cups all-purpose flour
- ¾ tsp. baking soda
- ½ tsp. kosher salt

1. Preheat the oven to 350 degrees. Line 2 baking sheets with parchment paper.

2. In a medium bowl, combine the brown sugar, sugar-stevia blend, butters, and peanut butter until smooth. Add the vanilla, egg, and water. Beat until combined.

3. In another bowl, combine the flour, baking soda, and salt. Stir the flour mixture into the peanut butter mixture in several batches.

4. Shape the dough into 1-inch balls and place them on the prepared baking sheets, leaving a 2-inch space between cookies. Dip a fork in water and use it to flatten the cookies, making a crisscross pattern.

5. Bake the cookies for 8 to 10 minutes, until just set. Remove the cookies from the oven and cool them on the baking sheets for 2 minutes. Remove the cookies from the baking sheets and let them cool completely on wire racks.

Per Serving: Calories 75, **Fat** 3 g

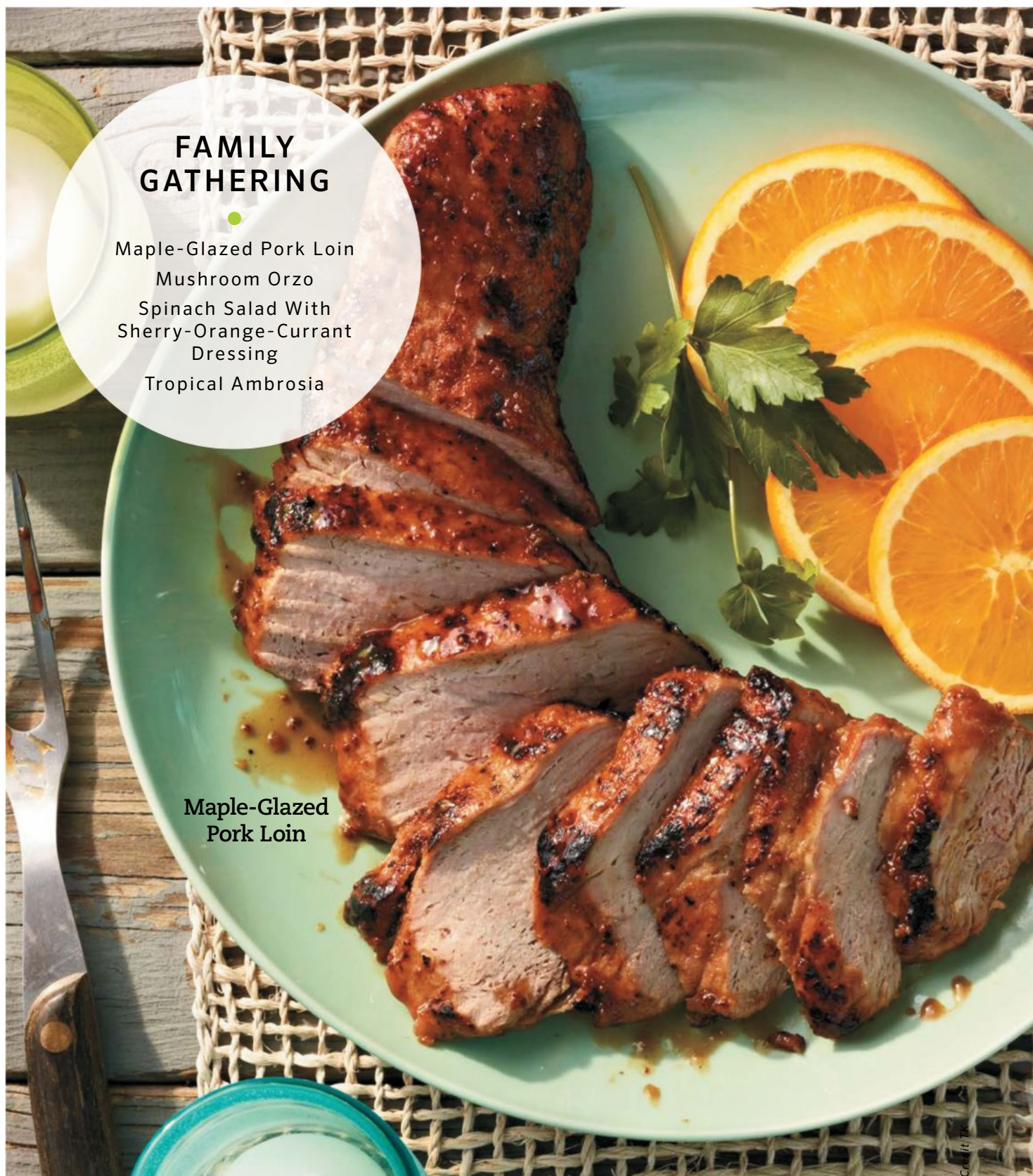
(Sat. Fat 1.3 g), **Carbohydrate** 10 g (Fiber 0 g, Sugars 4 g), Cholesterol 10 mg, Sodium 80 mg, Potassium 30 mg, Protein 2 g, Phosphorus 20 mg


Choices: Carbohydrate 0.5, Fat 0.5

FAMILY GATHERING

Maple-Glazed Pork Loin
Mushroom Orzo
Spinach Salad With
Sherry-Orange-Currant
Dressing
Tropical Ambrosia

Maple-Glazed
Pork Loin



A photograph of a maple-glazed pork loin on a wooden surface. The pork is cooked and glazed, with a blue ceramic bowl containing a white substance (likely the glaze) in the background. A green plate with orange slices is visible on the left. The recipe text is overlaid on the right side of the image.

Maple-Glazed Pork Loin

MAKES: 9 servings

SERVING SIZE: 3 oz.

PREPARATION TIME: 20 minutes

COOKING TIME: 35 minutes

Glaze

- $\frac{1}{3}$ cup fresh orange juice
- 4 Tbsp. pure maple syrup
- 1 Tbsp. coarse-ground Dijon mustard
- 2 tsp. lower-sodium soy sauce
- 1 tsp. dark brown sugar
- $\frac{1}{2}$ tsp. ground cinnamon

Pork

- 3 Tbsp. all-purpose flour
- 1 Tbsp. granulated sugar
- $\frac{1}{2}$ tsp. kosher salt
- $\frac{1}{4}$ tsp. freshly ground black pepper
- 1 Tbsp. canola oil
- 2 lean pork tenderloins
(1 lb. each), patted dry

1. Preheat the oven to 400 degrees. Add a rack to a large baking pan and coat with cooking spray; set aside.
2. For the glaze, whisk together the glaze ingredients in a small bowl; set aside.
3. On a large baking sheet, combine the flour, sugar, salt, and black pepper. Roll each tenderloin in the flour mixture; shake off the excess. The pork should be lightly coated.
4. In a 12-inch skillet (preferably stainless steel or cast iron), heat the oil over medium-high heat until there are light wisps of smoke. Add the tenderloins to the pan, leaving room between them. Curl the tenderloins if necessary to fit them in the pan.
5. Sear the tenderloins for about 4 minutes per side, until nicely browned. Place the seared tenderloins on the rack in the prepared baking pan; set aside.
6. Add the glaze to the skillet and lower the heat to medium. Cook, scraping up

any browned bits, for about 5 minutes, until the glaze is half its volume.

7. Brush one-third of the glaze over the tenderloins. Roast in the preheated oven for about 20 minutes. Brush another third of the glaze on the tenderloins and continue to roast for 10 minutes. Brush on the remaining glaze and roast for 5 minutes.

8. Remove the pork from the oven, tent with foil, and let it rest 15 minutes before slicing.

Per Serving: Calories 160, Fat 4.5 g (Sat. Fat 1 g), Carbohydrate 10 g (Fiber 0 g, Sugars 8 g), Cholesterol 55 mg, Sodium 205 mg, Potassium 360 mg, Protein 20 g, Phosphorus 180 mg
Choices: Carbohydrate 0.5, Lean Protein 3

Recipe adapted from
Robyn Webb's *The Diabetes
Comfort Food Cookbook*
(American Diabetes Association, 2011)

Food Outdoor Dining
FAMILY GATHERING

Spinach Salad With
Sherry-Orange-Currant
Dressing



Mushroom
Orzo

Mushroom Orzo

MAKES: 10 servings

SERVING SIZE: ½ cup

PREPARATION TIME: 15 minutes

COOKING TIME: 30 minutes

- 1 Tbsp. olive oil
- ½ cup chopped onions
- 1 garlic clove, minced
- 8 oz. whole wheat orzo
- 3½ cups low-fat, reduced-sodium chicken broth, divided
- ½ lb. cleaned, stemmed mushrooms, sliced
- 2 Tbsp. fresh grated Parmesan cheese
- ¼ tsp. kosher salt
- ¼ tsp. freshly ground black pepper

1. In a large skillet, heat the oil over medium heat. Add the onions and sauté for 4 to 5 minutes, until soft. Add the garlic and sauté for 1 minute. Add the orzo and sauté for 2 minutes.
2. Pour in 3 cups of the broth and bring to boiling. Cover, lower the heat, and simmer for 15 minutes, or until the orzo is tender and the broth is absorbed.
3. Meanwhile, in a small skillet, heat the remaining broth over medium heat. Add the mushrooms and sauté for 4 to 5 minutes, until browned. Add the mushrooms and Parmesan cheese to the orzo. Add the salt and black pepper, and combine.

Per Serving: Calories 105, Fat 2 g (Sat. Fat 0.4 g), Carbohydrate 18 g (Fiber 2 g, Sugars 1 g), Cholesterol 0 mg, Sodium 245 mg, Potassium 170 mg, Protein 5 g, Phosphorus 95 mg
Choices: Starch 1, Fat 0.5

Spinach Salad With Sherry-Orange-Currant Dressing

MAKES: 10 servings

SERVING SIZE: about 1 cup

PREPARATION TIME: 20 minutes

- 10 oz. fresh spinach leaves, stems trimmed
- ½ large peeled red onion, thinly sliced
- 1 pint cherry tomatoes, halved

Dressing

- 3 Tbsp. sherry vinegar
- 2 Tbsp. fresh orange juice
- 1 Tbsp. finely minced shallot or onion
- 1 tsp. Dijon mustard
- 1 tsp. honey
- ¼ cup olive oil
- 3 Tbsp. currants
- ¼ tsp. salt
- ¼ tsp. freshly ground black pepper

1. Arrange the spinach on a large flat platter or in a shallow bowl. Scatter the red onion and cherry tomatoes on top.
2. In a small bowl, whisk together the vinegar, orange juice, shallot, mustard, and honey. Slowly add the olive oil in a thin stream, whisking to emulsify. Fold in the currants. Add the salt and black pepper, and combine.
3. Drizzle the dressing over the salad and serve.

Per Serving: Calories 80, Fat 6 g (Sat. Fat 0.8 g), Carbohydrate 7 g (Fiber 1 g, Sugars 4 g), Cholesterol 0 mg, Sodium 95 mg, Potassium 285 mg, Protein 1 g, Phosphorus 30 mg
Choices: Carbohydrate 0.5, Fat 1



Tropical Ambrosia

MAKES: 10 servings

SERVING SIZE: ½ cup

PREPARATION TIME: 25 minutes

- 2 large mangoes, peeled and diced
- 2 cups fresh pineapple chunks
- 2 kiwifruits, peeled and diced
- 3 medium oranges, peeled (remove white pith) and diced
- ¼ cup fresh lime juice (about 1 lime)
- ¼ cup flaked unsweetened coconut

In a large glass serving bowl, add the ingredients in the order given and gently toss to combine.

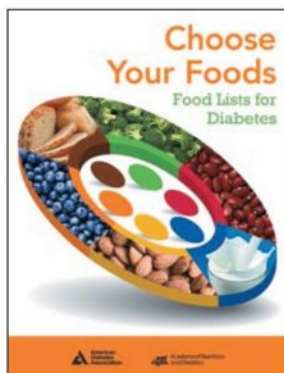
Per Serving: Calories 95, Fat 1.5 g (Sat. Fat 1.2 g), Carbohydrate 21 g (Fiber 3 g, Sugars 17 g), Cholesterol 0 mg, Sodium 0 mg, Potassium 270 mg, Protein 1 g, Phosphorus 25 mg
Choices: Fruit 1.5

Choosing Foods

New nutrition guides feature updates on “exchanges” and more

| By Madelyn L. Wheeler, MS, RDN, FADA, FAND, CD | Associate Editor

Nutrition is such an essential part of diabetes management that it's no surprise the American Diabetes Association has created many materials about what to eat. One of the most popular guides is a nutrition booklet published originally in 1950 by the U.S. Public Health Service, the American Diabetes Association, and the American Dietetic Association (now the Academy of Nutrition and Dietetics). It's now in its seventh edition as *Choose Your Foods: Food Lists for Diabetes*. A dedicated group of dietitians volunteered and revised the booklet to reflect current eating patterns and grocery store items.



What's the Same

- 1 *Choose Your Foods: Food Lists for Diabetes* serves as the basis for carbohydrate counting (the lists of foods containing carbohydrate continue to use 15 grams of carbohydrate per serving size).
- 2 It still focuses on overall healthy food that's good for everyone (healthy sources of protein, fat, and carbohydrate).
- 3 It continues to serve as the basis for developing a healthy eating plan.
- 4 The lists group foods according to similarities in food values: A single food in its given serving size within a list contains approximately the same carbohydrate, protein, fat, and calories as any of the other foods in the same list. This means that you will get about the same food value if you trade one food on the list for any other food on the same list.

What's New

- 1 After more than 60 years, the word “exchange” has been retired, replaced by the word “choice.” You'll see that change in *Diabetes Forecast* recipe nutrition facts, too.
- 2 The lists previously labeled “meat” are now called “protein” (lean protein, medium-fat protein, high-fat protein, and plant-based protein).
- 3 The food lists reflect items that are easy to find where food is purchased and ethnic and regional food favorites.

The booklet has also inspired other helpful eating guides. To order single copies of the following publications (also available in bulk), visit shopdiabetes.org or call 1-800-232-6455.

- ▶ *Choose Your Foods: Food Lists for Diabetes* (order #5601-13 English, #5617-07 Spanish; \$2.99 ADA members/\$3.89 nonmembers): The food lists make picking and choosing similar foods easy, to aid in carb counting and calorie management.
- ▶ *Count Your Carbs: Getting Started* (#5623-06; \$4.80/\$6.75): See which foods contain carbohydrate, how much carbohydrate to eat at meals, and where to find additional carb information.
- ▶ *Match Your Insulin to Your Carbs* (#5622-06; \$4.80/\$6.75): This booklet provides information about how to use a flexible insulin plan to match mealtime insulin doses to carbs.
- ▶ *Eating Healthy With Diabetes: An Easy Reading Guide* (#5604-04; \$4.80/\$6.75): Picture cues for portion sizes and color codes for food types show how to put together a diabetes-friendly eating plan.
- ▶ *Choose Your Foods: Food Lists for Weight Management* (5603-08; \$2.99/\$3.89): This booklet is essentially the same as *Choose Your Foods: Food Lists for Diabetes*, but with an emphasis on healthy weight.



WHAT'S YOUR PLAN?

Are you a fan of “exchanges,” an advanced carb counter, or someone who tends to guesstimate? Let us know your favorite technique for planning what you eat and why it works for you. E-mail replyall@diabetes.org.

Combining two of nature's sweeteners.

Domino *light*
sugar & stevia
blend

Bake favorite recipes with fewer calories and carbohydrates.

Try packets for easy **Sprinkling** or to **Stir** into beverages.

Enjoy a delicious sweet taste and **no artificial ingredients** from the makers of Domino® Sugar.



©2014 Domino Foods, Inc.

*the Real Way
to do Sweet!™*



**1/2 Calories of
Sugar & 2 Grams
of Carbs per Serving**

a national strategic partner of
American Diabetes Association.

www.diabetes.org

dominosugar.com/light

Meet the Red Striders

People with diabetes are honored
participants at Step Out events

Events

THE RED STRIDERS ARE coming! You've seen them throughout the magazine—now meet the people who have brought you the good word on Step Out: Walk to Stop Diabetes®. Step Out is the American Diabetes Association's walking event to raise money for diabetes research, education, and awareness. Red Striders are people with diabetes who participate in the event. Learn more about why these Red Striders step out.

RED STRIDER
Jahna Houston,
63, of North
Hollywood, Calif.
Actor, writer,
and producer.



Diabetes Stats:

Diagnosed with type 2 diabetes seven years ago. Manages with diet and exercise. Her mother, siblings, and other family members also live with diabetes.

Step Out Experience:

Started three years ago, when a friend who participated in the Seattle Step Out asked if Houston was participating in the Los Angeles event. Houston decided she would and became the Team Red captain. She was Red Strider chair for 2013.

Why She Steps Out:

To raise awareness about a cause that hits close to home. "We need to demystify diabetes and really bring it into the realm of real for people. This is the first [charity event] that has really touched me personally, and that's what makes me passionate about being part of this."

Photographs by Thomas Alleman



RED STRIDER

Rhiana Wynn,
8, of Saugus, Calif.
Elementary school
student.



Diabetes Stats:

Diagnosed with type 1 diabetes at age 4. Manages with an insulin pump and gets help from her parents counting carbs. For exercise, she loves gymnastics and riding her bike, plus “I just run around a lot.”

Step Out Experience:

Rhiana and her family first learned about the American Diabetes Association and Step Out at a Family Link event, where she and her parents met other families affected by diabetes. Last year, Rhiana was the Los Angeles Step Out Youth Ambassador. “It’s really scary because you have to do a speech in front of a lot of people. But kinda good, because I got to cut the red ribbon to start the walk.”

Why She Steps Out: To encourage other people with diabetes and to meet other kids like her. “I would just say it’s a lot of fun, and you get to talk to other diabetics, and you get to dance to music—it’s just really fun.”



RED STRIDER

Jennifer Weiss,
37, of Toluca Lake, Calif.
Writer.



Diabetes Stats:

Diagnosed with prediabetes two years ago. Manages with diet and exercise, but “the decisions are not always easy.” Her father died of diabetes-related complications in 2007.

Step Out Experience:

Joined in 2007 to honor her dad’s memory. Weiss thought a fund-raising goal of \$500 might be pushing it—but then she became a Champion, a Step Out participant who raises \$1,000 or more. She’s done the same every year since, and she’s been cochair of the Los Angeles Step Out event.

Why She Steps Out:

To provide support for herself and others. “When I show up to that walk that morning, it hits you like a freight train, and you know, ‘I’m not alone.’ Statistics are boring, but people are not. There are tons of people here who are just like me, and we can be powerful together.”



RED STRIDER
Eddie Uribe,
43, of Sylmar, Calif.
Chef.



Diabetes Stats:

Diagnosed with type 1 diabetes in 1989. Manages with an insulin pump, diet, and exercise, “especially if you count chasing around two 6½-year-old twins!”

Step Out Experience:

Uribe was motivated to join the walk in 2004—less than a year after his leg was amputated below the knee. He started participating in Step Out and other ADA events (including giving cooking demonstrations and updating family recipes to healthier options) and has been part of the planning committee for the Valencia, Calif., walk since then. He was also an ADA representative on *Jamie Oliver’s Food Revolution*.

Why He Steps Out: To motivate other people with diabetes to stay healthy together. “For the first five years, I never took care of myself. After that, I finally woke up, and in my older years, started having some complications. I get really passionate about it, and I like to go and talk to young kids and give them a kind of scared-straight thing. It’s good to see how many people support the organization, and it makes me feel good that people care about our situation.”

RED STRIDER

Joan Sharpless,
63, of Glendale, Calif.
Retiree.



Diabetes Stats:

Diagnosed with type 2 diabetes in 1989. Manages with diet, exercise, metformin, and sitagliptin (Januvia). Also manages hearing loss and depression—both of which are more common in people who have diabetes.

Step Out Experience:

Joined up with the American Diabetes Association after retiring in 2013. “I was looking for something to do, so I put an e-mail out there. Within seconds, I think, I got a call from [ADA special-events manager] Beth Cole. She’s amazing, and she pulled me in and put me on as a volunteer. And then before I knew it, she invited me to be part of the planning committee [for Step Out].”

Why She Steps Out: For others with diabetes, and for herself. “If you can donate your time at all, you will help so many people, because this reaches across the world. I don’t just walk for me; I don’t just walk for the ADA. I walk for the world, and you have to, as best you can.” ▲



Ace the Test

Start taking control of your health at EXPO and online

Events

AMERICAN DIABETES ASSOCIATION EXPO®

events are about to get even more hands-on. Now when you visit one of the all-day diabetes fairs held around the country, you can take the 60-second online Diabetes Risk Test to find out your risk of developing type 2 diabetes. After you answer simple yes-and-no questions about your age, family history, and a few other details, volunteer medical staff at some locations will walk you through your specific risks and possible complications—and how you can lower them. Or, visit the ADA's My Health Advisor website, diabetes.org/mha, for concrete recommendations on reducing your 10-year risk of developing diabetes or its complications, such as heart attack and stroke. Learn more and find an EXPO event near you by visiting diabetes.org/expo. ▲

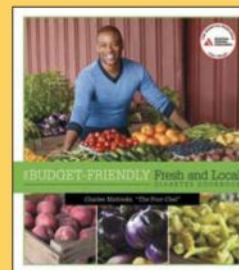


Books

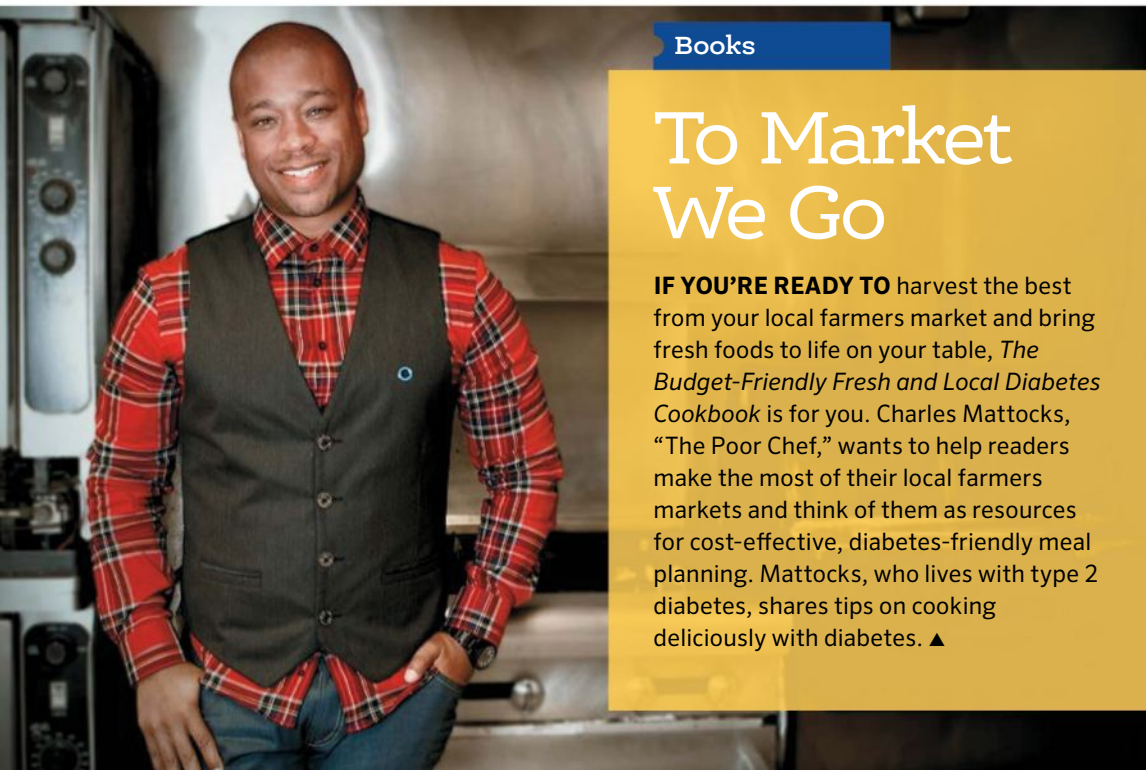
To Market We Go

IF YOU'RE READY TO harvest the best from your local farmers market and bring fresh foods to life on your table, *The Budget-Friendly Fresh and Local Diabetes Cookbook* is for you. Charles Mattocks, "The Poor Chef," wants to help readers make the most of their local farmers markets and think of them as resources for cost-effective, diabetes-friendly meal planning. Mattocks, who lives with type 2 diabetes, shares tips on cooking deliciously with diabetes. ▲

PROMOTION



Diabetes Forecast readers can save 30 percent on *The Budget-Friendly Fresh and Local Diabetes Cookbook* by ordering the book in June. Visit shopdiabetes.org and use promo code **POORCHEF** at checkout.





Shannon Wallet, PhD

Occupation

Immunologist, University of Florida College of Dentistry

Focus

Type 1 Diabetes

ADA Research Funding

Career Development Award

Skeleton Keys

Unlocking the mysteries of bone and joint health

BY ANDREW CURRY

Research

BONES SEEM LIKE the one feature of our bodies that doesn't move or change. But unlikely as it may seem, the 206 bones in your body are actually a lifelong work in progress: Every seven years, give or take, you get a new skeleton.

The work is done by two types of specialized cells, called osteoclasts and osteoblasts. "Osteoclasts are responsible for removing bone, and osteoblasts are responsible for laying new bone down," says Shannon Wallet, PhD, an immunologist at the University of Florida's College of Dentistry. "They work together to remodel the skeleton."

To picture how it works, imagine renovating a house. There's a demolition crew, the osteoclasts, that comes in, rips out the old, and takes it away. Only then can the osteoblasts arrive to install the new stuff. That's just what it's like with your bones. "To get good-quality bone, you have to remove bad-quality bone. If you don't, over time quality and strength would be very poor," Wallet says.

Wallet wants to know why diabetes makes the osteoclast wrecking crew go wild. In people with diabetes, "osteoclasts [break down] much more bone," she says. "They're overactive, and in addition they don't turn themselves off."

Photograph by Jensen Hande



OSTEOCLASTS WORK TOO WELL. THAT'S WHY YOU END UP WITH FRAGILE BONES.



—Shannon Wallet, PhD

Other studies have shown that diabetes can get in the building crew's way, too. "Osteoblasts in type 1 diabetes aren't very good at laying down quality bone," Wallet says. In other words, "osteoblasts don't work well enough, and osteoclasts work too well. That's why you end up with fragile bones." Indeed, bone fragility and osteoporosis, a disease that reduces bone density, are both much higher in people with diabetes. It can also be harder for them to heal after breaking a bone.

Arthritis, inflammation of the joints, is another major problem. More than half of people with diabetes will have arthritis in their lifetime. The two diseases make for a particularly bad combination. According to the Centers for Disease Control and Prevention, "adults with both arthritis and diabetes were 30 percent more likely to be physically inactive than those with diabetes only, even after adjustment for age, sex, and body mass index." It's a vicious cycle: Arthritis makes it painful to exercise; lack of exercise makes it hard to get blood sugar under control; high blood glucose makes inflammation and arthritis worse.

People with type 1, in particular, seem to have a higher likelihood of developing arthritis, although researchers aren't sure why. Wallet says osteoclasts and osteoblasts are responsible for bone remodeling that occurs in the joints. "It is not just breakdown of cartilage that causes arthritis, but also the bone," she adds.

Wallet, with the help of a grant from the American Diabetes Association, is investigating the responses of osteoclasts to different anti-osteoporosis drugs. To do so, Wallet uses mice with the equivalent of type 1 diabetes to test how osteoclasts behave in a

type 1 environment. It's an important first step: There are anti-osteoporosis drugs on the market that help treat bone loss, but researchers don't know if they also work well in people with diabetes.

By using mice, Wallet and her team can test different approaches, narrowing down which might work best before moving on to a trial in humans. "We can see if the drugs on the market are effective under these conditions," she says. "Once we figure out the signaling process, we can augment that."

Specifically, Wallet is trying to understand what it is about type 1 diabetes that confuses the cells responsible for removing bone. "We're investigating the mechanism of how this works," she says. "By evaluating the signaling process, we can understand how it's dysfunctional in type 1 diabetes."

Human cells, taken from donors with type 1 diabetes, can also be used in a laboratory environment. Wallet can create bone-removing osteoclasts from white blood cells, put them under different types of conditions, and see how well they respond to the body's signals to stop once they've removed poor-quality bone. "If we can inhibit osteoclast activation, maybe we can improve fracture healing," Wallet says. Ideally, the osteoclasts will then somehow signal bone-producing osteoblasts to come in and fix the bone they've removed.

If her research yields positive results, the next step would be to put together a drug trial in humans. In a decade—or more—treatments could be available to people with diabetes. In the meantime, Wallet's advice is familiar. High blood sugar can lead to inflammation, which worsens the pain and progression of arthritis and osteoporosis. "This is just another really good reason to stay under glycemic control," she says. ▲



SUPPORTING DIABETES SCIENCE

The ADA warmly welcomes Mary Davis of Scranton, Pa., to the Summit Circle. Her legacy will continue to fund vital ADA research, advocacy, and educational efforts. The Summit Circle is a recognition society for individuals who have included the ADA in their estate or other long-term plans. For information on planned giving, please call 1-888-700-7029.



Gift

The ADA wishes to express gratitude for the estate and trust gift In Memory of Karen Speck.



"The leader in unique and essential products for people with diabetes since 1986, Medicool is dedicated to designing quality, insulin protecting, and cooling cases, essential for active daily life. Medicool is a brand you can trust."

Dia-Pak® – Travel cases



\$31.95 Dia-Pak® Deluxe™

- Holds all your supplies in one convenient case
- Organizes 2-week supply
- FREE large 8 oz. refreezable Gel Pack



\$24.50 Dia-Pak® Classic™

- Compact version of the Dia-Pak Deluxe
- Fully insulated
- FREE Large 8 oz. refreezable Gel Pack



\$16.95 Dia-Pak® DayMate™

- Our most compact case—ideal for small meters
- Works with all pen systems
- Clips to belt for convenience
- FREE small 3 oz. refreezable Gel Pack



Pen Plus Case™ \$21.50

- Stylish ergonomic design makes it perfect for men, women or children
- Cools insulin for up to 12 hours
- Pockets store all of your supplies
- Patented technology will keep your medication safe and cool all day

D.I. Case™ – Diabetic insulin carrying case \$17.95

- Smallest, handiest carrying case available for transporting your insulin and syringes
- Resembles a designer eyeglass case
- Lightweight aluminum with fitted inserts to hold 2-vials of insulin, 2-syringes and cotton swabs
- Fits comfortably in your pocket or purse and weighs only four ounces.

Easily fits in to a shirt pocket or purse



MEDI-BELT \$24.95



- Fits snug & flat on waist
- Comfortable to wear, simple to insert
- For both adult & children insulin users
- No zippers, ties, clips or Velcro®
- Made from quality Lycra® material
- 3 to 6 pockets per belt
- For every occasion-business and active wear
- Sizes S to XL

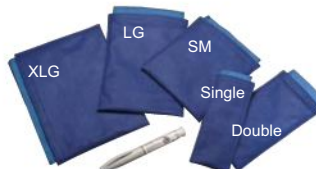


Insulin Protector™ \$31.95

- Comes with two reusable cooler packs use one while you refrigerate the other
- Cools insulin for up to 12 hours
- Pockets store syringes and alcohol swabs
- Integral belt loop or hand strap sewn on back

Poucho™ – Cools without refrigeration

- Activates with tap water in just 40 seconds
- Patented fabric enhances cooling properties associated with evaporation—Cools up to 4 days
- Great for active travelers, quick and simple to use
- Can be re-activated hundreds of times
- Five convenient sizes



Single Pen (2 1/4" x 6 1/2" black or blue)	\$25.50
Double Pen (3 1/4" x 7" black or blue)	\$27.50
Small (5 1/2" x 6 1/2" black or blue)	\$27.50
Large (5 1/2" x 7 1/2" black or blue)	\$29.50
XLarge (9" x 6 1/2" black or blue)	\$31.50



Supplies not included

www.medicool.com

"order today!" 800-433-2469

www.medicool.com "order today!" 800-433-2469

"Medicool cares about health and wellness, designing the highest quality nail and foot care products. Medicool also offers best in class health and fitness equipment to enhance your life."

Pedi Nova™ – Professional Foot Care \$127.50



When you have diabetes, proper foot care is important to avoid serious health problems. Take the extra care and treat yourself to a professional quality manicure and pedicure at home.

- Full power model with 12 tools
- Easy to use, quick-change chuck
- Powerful, variable speed motor.

For feet For nails



Twist Stepper \$105.95 Compact exercise machine

Aerobic exercise increases insulin sensitivity and, along with proper nutrition, helps restore normal glucose metabolism by decreasing body fat. The Twist Stepper will give you a great workout in the comfort of your own home.

- Adjustable stepping height
- Heavy duty steel construction
- Handle bar helps you maintain balance
- Security non-slip footplates
- LCD display function

DiaSox® – The ideal sock for people with foot or leg swelling \$8.50/pr

Buy 5 pair and get one pair FREE!



DIASOX

- Fits men and women in medium to extra wide shoe widths
- Unique knit top stays up without binding or leaving marks
- Flat-toe stitching for a seam-free feel
- Anti-microbial fabric
- White or Black color
- Offers maximum stretch
- Five size ranges to fit shoe sizes 5 to 20
- 88% breathable cool-cotton yarn

Full Leg Compression Therapy \$475.00

Half Leg and Arm Systems also available!



This new concept provides superior effects with in-home use. Promotes better venous blood flow which in turn will control swelling, varicosities, leg fatigue, and other problematic leg conditions.

Ideal for:

- Lymphedema
- Limb Paralysis
- Venous Insufficiency
- Edema
- Fat Dissolution
- Rheumatoid Arthritis
- Blood Circulation
- Effect of Exercise
- Deep Vein Thrombosis
- Pneumatic Embolism
- Varicose Veins
- Wound Therapy

The European Comfort Sock \$11.95/pr Designed in Switzerland

Buy 5 pair and get one pair FREE!



Medicool's European diabetic sock designed in Switzerland are made specifically for those with diabetes. It's the first sock in the world that is guaranteed to be made without any elastic or elastomers and do not slip. The sock will not bind, sag or slip.

Available in BLACK and WHITE color

Sock sizes to fit shoe size:

Men's: 5 to 12 1/2

Women's: 5 to 12

Meal Measure

Portion Control on Your Own Plate can help you lose weight and live healthy. Now it is easy to manage your daily intake with the Meal Measure.



- Easy to use
- Measure your food right on the plate
- Fits most dinner plates
- Cavities are labeled vegetable or fruit, start or protein
- Each cavity is one cup at the top with one-half cup line inside
- Top-rack dishwasher safe



Meal Measure is dietitian recommended and follows the USDA "My Plate" serving sizes

Meal Measure \$14.95 plus S/H

ImpoAid™ – Safely reverse erectile dysfunction



Help maintain your quality of life! Developed to aid in erectile dysfunction, the ImpoAid uses vacuum therapy to maintain a rigid erection. Safe, easy-to-use, the ImpoAid does not rely on drugs or medication.

- Impotence solved
- No prescription needed
- FDA approved
- One year warranty

Manual Unit \$116.50

Battery Powered Unit \$158.95

FREE Offer with online purchase of \$50 or more

Leaving used needles laying around can be hazardous especially to small children. Get this FREE Needle Safety System with any ONLINE order of more than \$50.00. Shop at www.MEDICOOL.com, spend \$50.00 or more and receive this Needle Safety System



Medicool
health & beauty

111104

Reflections



From Zero to 100

Setting goals has always helped keep me motivated. Then telling others about those goals helps keep me honest and accountable—nothing is worse than a question about your plans from friends and family if you have not kept up on them.

So here it is ...

I am biking 100 miles in the Coralville, Iowa, Tour de Cure® this June. There, I said it. There is no turning back!

I admit that the idea of riding for 100 miles seems foreign to me and scares me. I biked in high school and as a college undergraduate, but gave it up when life became crazy.

In 2010, I felt as if I was failing at everything. I hated myself, how I looked, and how much I weighed. I hated that no matter how much I exercised and how “healthy” I ate, I just kept gaining weight. I tried biking and made it just over a mile before exhaustion. Again, I felt like a failure.

Then I was diagnosed with type 2 diabetes. Who knew that could be a good thing? I started taking medication and educating myself. I attended the American Diabetes Association (ADA) EXPO® in Minneapolis and joined the Tour de Cure Twin Cities. I set a goal of riding 7 miles at the Tour, which was nine months away. I started training—OK, riding around the block, then a few more blocks, and then a loop that turned out to be 9 miles! I joined Team Red and found encouragement and support from other team members and from the diabetes online community.

In June 2011, I rode 27 miles at my first Tour de Cure and could have gone even farther! In 2012, I took over as captain of Team Red

and set my goal for 45 miles. I made the 45 miles, barely. I wanted to quit more than once but made it to the finish line. I was so happy to see the ride end. In 2013, after getting off metformin, I once again rode 45 miles—but this time, because of better training and a deeper understanding of nutrition and hydration, I made faster time and had improved glucose management. This time I was happy to see the finish line, for all the right reasons.

Setting the goal, announcing it, training, and, most important, having the support of friends and family will make this year’s 100-mile goal happen. I cannot wait to hear the “Go Red Rider!” cheer at the start of this ride and, even more, at the end.

Yes, I can make it from zero to 100 miles in less than four years. I will do this!

And you can join me. Why not take on a challenge for your health this summer? Do it by setting a goal that suits you. Consider joining the Tour de Cure in your area. Team Red is the ADA team for people with diabetes, their friends and families, and anyone looking for a team. Consider this your personal invitation to join Team Red at the Tour de Cure near you.

Go Red Rider!

TERENA WILKENS lives in St. Peter, Minn., and works at Gustavus Adolphus College Theatre & Dance as an adjunct faculty member, lighting and sound designer, and technical director. Her Tour Web page is at main.diabetes.org/goto/TWilkins.

We welcome your Reflections submissions:



E-mail us @: replyall@diabetes.org



Send mail to:

Diabetes Forecast
1701 N. Beauregard Street
Alexandria, VA 22311



Click



TO LEARN MORE about Tour de Cure, sign up to ride, or become a Red Rider®, visit diabetes.org/tour.

DIABETES FORECAST® June 2014, Vol. 67, No. 6 is a registered trademark of the American Diabetes Association—all rights reserved. **DIABETES FORECAST** (ISSN 0095-8301) is published monthly by the American Diabetes Association, 1701 N. Beauregard Street, Alexandria, VA 22311, 1-800-806-7801. Periodicals postage paid at Alexandria, Virginia, and additional mailing offices. POSTMASTER: Send change of address to **DIABETES FORECAST**, American Diabetes Association, Membership Department, P.O. Box 15218, North Hollywood, CA 91615. Back issues: \$6 plus \$5 for postage and handling to the U.S., \$6 plus \$13 for postage and handling to Canada and Mexico; all other countries, \$20 plus \$16 for postage and handling. ©American Diabetes Association, 2014. All rights reserved under International and Pan-American Copyright Convention. This magazine may not be reproduced in whole or in part without written permission of the American Diabetes Association. The American Diabetes Association is a nonprofit organization. All donations are tax deductible.

The *natural* alternative to diet sodas!

Stay Fit... Stay Natural... Stay Sweet

A recent 10-year study showed that women who drank two or more diet drinks a day were 30% more likely to have a heart attack or other cardiovascular event and were 50% more likely to die during those cardiac events than women who rarely consume diet drinks. The study also suggested women who consume more diet drinks may be compensating for unhealthy habits, which may lead to heart attacks.

THE SOLUTION: SweetLeaf® Liquid Stevia Sweet Drops™ Cola mixes deliciously with your favorite sparkling water to make the most natural and great tasting alternative to diet soda.

Add two drops to every ounce of sparkling water (or to taste) and get the flavor diet soda drinkers desire.



Sparkling Water



Cola
Sweet Drops™



Delicious
Diet Soda Taste

Natural • Delicious • Zero Carbs • Zero Calories • Gluten Free

Sweet
Drops
sweetener

Enjoy 30% OFF

COLA SWEET DROPS

@ ShopSweetLeaf.com

Use Code: ColaDF Expires 7/31/2014



BUY: www.ShopSweetLeaf.com and in your natural foods or grocery store

Consumer: Only one (1) coupon is redeemable per purchase and only on specified products and sizes. You pay any sales tax. May not be reproduced, purchased, traded or sold. Any other use constitutes fraud.

More comfortable injections begin with less syringe needle.

Choose the first and only insulin syringe with a 6mm needle for more comfortable injections.



MANUFACTURER'S COUPON

EXPIRES 06/30/2015

\$10⁰⁰ OFF
One Box of

**BD Insulin Syringes with the
BD Ultra-Fine™ 6mm needle**



available in all barrel sizes

NDC/HRI No: 08290-3249-09 • 08290-3249-10
08290-3249-11 • 08290-3249-12



BD, BD Logo and all other trademarks are property of Becton, Dickinson and Company. © 2014 BD

Limit one coupon per purchase of product indicated. Offer cannot be combined with any other offer. Offer valid only in the United States. This coupon is prohibited for prescriptions reimbursed in whole or in part by Medicaid, Medicare, or any similar federal or state healthcare program, including any state medical or pharmaceutical assistance program. The discount provided by this coupon must not exceed the amount of an individual's co-payment under any federal or state program. This coupon is not insurance. This coupon is redeemable by Becton, Dickinson and Company, who reserves the right to rescind, revoke or amend this offer without notice. The selling, purchasing, trading, or counterfeiting of this coupon is prohibited. This offer is also invalid where prohibited by law, and is not available to clubs, groups or organizations. Claims submitted to any federal or state program must fully reflect all discounts, rebates or other reductions in price.

Consumer: Present this certificate to retailer at time of purchase. Consumer pays applicable sales tax.

Retailer: BD will reimburse you [the face value of this coupon or specific amount] plus 8¢ handling provided you and the consumer have fully complied with the terms and conditions of this coupon. Send valid coupons with proof of purchase to BD, P.O. Box 880294, El Paso, TX 88588-0294. Offer expires on June 30, 2015.

038290-021144



bd.com/6mmsyringe

[facebook.com/
DiabetesInnovationsUS](https://www.facebook.com/DiabetesInnovationsUS)

BD, BD Logo and all other trademarks are property of Becton, Dickinson and Company. © 2014 BD.



Helping all people
live healthy lives